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BULLETIN No. 55

BUREAU OF EDUCATIONAL RESEARCH  
COLLEGE OF EDUCATION

## Annotated Bibliography of Graduate Theses in Education at the University of Illinois

By

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Assistant in Industrial Education  
and

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Assistant, Bureau of Educational Research



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PUBLISHED BY THE UNIVERSITY OF ILLINOIS, URBANA  
1931

The Bureau of Educational Research was established by act of the Board of Trustees June 1, 1918. It is the purpose of the Bureau to conduct original investigations in the field of education, to summarize and bring to the attention of school people the results of research elsewhere, and to be of service to the schools of the state in other ways.

The results of original investigations carried on by the Bureau of Educational Research are published in the form of bulletins. A list of available publications is given on the back cover of this bulletin. At the present time five or six original investigations are reported each year. The accounts of research conducted elsewhere and other communications to the school men of the state are published in the form of educational research circulars. From ten to fifteen of these are issued each year.

The Bureau is a department of the College of Education. Its immediate direction is vested in a Director, who is also an instructor in the College of Education. Under his supervision research is carried on by other members of the Bureau staff and also by graduates who are working on theses. From this point of view the Bureau of Educational Research is a research laboratory for the College of Education.

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University of Illinois, Urbana

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UNIVERSITY  
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PRESS

## PREFACE

Relatively few of our graduate theses in education, especially those presented in partial fulfillment of the requirements for a master's degree, are published. In the case of those that are published it is frequently difficult to locate the reference. Consequently, it has seemed worth while to present a complete alphabetical list of the graduate theses in education at the University of Illinois from the recognition of the Department and the Graduate School to February, 1931. For each thesis there is given a brief description, which is intended to reveal the general nature of the study and the reported size. There has been no attempt to evaluate the theses, and for this reason the publication of the descriptive statements should not be interpreted as validating the reported findings. An analytical index has been added in order to facilitate the use of the alphabetical list of titles.

WALTER S. MONROE,

February 26, 1931

*Director*



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## TABLE OF CONTENTS

	PAGE
PART I. INTRODUCTION . . . . .	7
PART II. BIBLIOGRAPHY . . . . .	10
TOPICAL INDEX . . . . .	75



## PART ONE

### INTRODUCTION

The following bibliography of graduate theses in education at the University of Illinois has been prepared in the hope that it may prove of value to those who are interested in the fields represented by these studies. Since the recognition of the Department and of the Graduate School, 253 theses have been prepared by students in partial fulfillment for the degrees of Master of Arts, Master of Science, and Doctor of Philosophy in education in the Graduate School of the University. The trend of this period is shown by Table I, which gives the number of masters' and doctors' theses by year for the period from 1910 to February, 1931. Few of these studies have appeared in any published form. To locate references to all that have, would be a difficult and time-consuming task. As it is, with most of the theses, only two or three typewritten copies have been prepared. The fact that the library of the University of Illinois has a complete set of these theses makes them accessible to persons in close proximity to the institution.

NUMBER OF MASTERS' AND DOCTORS' THESES IN EDUCATION

Year	M.A.	M.S.	Ph.D.	Total
1910	4			4
1911	3			3
1912	5			5
1913	2			2
1914	6			6
1915	5		2	7
1916	8		1	9
1917	7		5	12
1918	1		1	2
1919	5			5
1920	4	3	1	8
1921	5		3	8
1922	8	2	1	11
1923	5	5		10
1924	10	5	2	17
1925	13	8	2	23
1926	14	10	1	25
1927	9	10	2	21
1928	13	6	1	20
1929	16	11	2	29
1930	9	14	1	24
1931*	2			2
1910-31	154	74	25	253

\*Includes only the degrees granted in February, 1931.

Many libraries of the United States coöperate in lending materials to aid the research of scholars in other institutions. However, with the general increase of graduate-school enrollment, it is becoming more and more common for libraries to restrict the loans, lending only for faculty and candidates for the doctor's degree.

Because of the fact that only a few of the graduate theses in education at the University of Illinois have appeared in any published form, the contents of these theses are little known. The writers have, therefore, made it their purpose to describe briefly the general nature of each of these studies. No attempt has been made to evaluate the investigations, but only to give such information as any interested person might desire. In the description of each study an effort has been made to give information with regard to the purpose of the research, the sources of data, the techniques employed, the conclusions reached, and the presence or absence of annotations. In describing the studies, it has been the aim of the writers to reveal the general nature of each thesis in as limited a space as possible, and for that reason in some instances the descriptions may not give all of the more pertinent information that a person might wish.

The theses are listed alphabetically by author. The alphabetical list is supplemented by an extensive topical index in which reference is made by number to the various studies. By referring to this topical index, which begins on page 75, one may obtain a list of theses that appear to give promise of assisting in the study of a given topic. In preparing the topical index the authors have attempted to list each thesis under each of the captions for which it gave promise of being helpful. A number of theses are listed under two or more captions.

During the period from the recognition of the Department and of the Graduate School twenty-five of the theses submitted for graduate degrees have been offered in partial fulfillment for the degree of Doctor of Philosophy. The descriptions of these studies are included in the bibliography. For the benefit of persons who might be interested only in these Ph.D. investigations, the following list of them is presented.

Beatty, A. J. "A Comparative Study of Corporation Schools as to Their Organization, Administration, and Methods of Instruction," 1917. 112 p. (16)\*

Bentley, R. C. "Individual Project in the Liberal College," 1917. 231 p. (19)

Broyles, W. A. "A Suggested Program for First-Year Graduate Work in Agricultural Education," 1925. 200 p. (38)

Capps, A. G. "Analysis and Measurement of Spellers," 1921. 163 p. (45)

Corey, S. M. "The Relation Between Compulsory Physical Exercise and the Ability of the White Rat to Learn and Relearn an Elevated Skeleton Maze," 1930. 43 p. (54)

Dolch, E. W. "The Acquisition of Meaning in Children's Reading," 1925. 212 p. (65)

\*The number in the parentheses in each case refers to the number of the reference in the bibliography.

Glick, H. N. "Effects of Practice in Intelligence Tests," 1924. 270 p. (89)

Greene, J. H. "Constructing a Project Curriculum in Sheep Husbandry," 1920. (94)

Henry, T. S. "Classroom Problems in the Education of Gifted Children," 1917. 154 p. (107)

Herriott, M. E. "Attitudes as Factors of Scholastic Success," 1929. 210 p. (109)

Holley, C. E. "The Relationship Between Persistence in School and Home Conditions," 1915. 151 p. (115)

Johnston, J. H. "An Investigation into the Elements Which Constitute Good Teaching in the Elementary School," 1916. 134 p. (128a)

Knudsen, C. W. "The Relation Between Learning Exercises and Immediate Objectives," 1927. 167 p. (135)

McKinney, H. T. "Promotion of Pupils: A Problem in Educational Administration," 1921. 206 p. (155)

Manuel, H. T. "A Study of Talent in Drawing," 1917. 178 p. (158)

Miller, W. S. "Mental Tests and the Performance of High-School Students as Conditioned by Age, Sex, and Other Factors," 1917. 146 p. (163)

Nolan, A. W. "The Case Method in the Study of Teaching with Special Reference to Vocational Agriculture. A Contribution to Methods in Teacher Training," 1924. 377 p. (175)

O'Brien, J. A. "Some Factors in the Development of Speed in Silent Reading," 1921. 273 p. (177)

Odell, C. W. "The Use of Intelligence Tests as a Basis of School Organization and Instruction," 1922. 204 p. (178)

Reagan, G. W. "Effects of Practice on Individual Difference," 1928. 272 p. (193)

Reinhardt, Emma. "A Study of Standards for Immediate or Classroom Objectives, Materials of Instruction, and Pupil Activities for Two Years of French, with Especial Reference to the Social and the Leisure Time Objectives of the North Central Association," 1927. 224 p. (195)

Rugg, H. O. "Descriptive Geometry and Mental Discipline," 1915. 135 p. (203)

Staley, S. C. "The Program in Physical Education for the High School," 1929. 454 p. (218)

Stevenson, J. A. "The Project Method of Teaching," 1918. 147 p. (220)

Weber, O. F. "The Direction of Learning Outside of the Class Recitation Period," 1926. (244)

## PART TWO

### BIBLIOGRAPHY

1. **Adams, W. S.** "The Improvement of High-School Teachers in Service," M.S., 1926. 118 p.

Consideration is given to the need for teacher improvement, objectives in teacher improvement, general principles governing a program of teacher improvement, administrative procedures available for stimulating and facilitating teacher improvement, and a desirable pedagogical technique for making use of the more promising administrative procedures. The basic data were secured from the reports of the State Superintendent of Public Instruction of Illinois, from reports of the High School Visitor of Illinois, and from reports of the North Central Association. Bibliography, forty-eight references.

2. **Alexander, J. A.** "The Development of the Quantitative Method of Evaluation of Credit for High-School Work," M.A., 1917. 99 p.

In this study the attempt is made to indicate the historical phases of the question of giving credit for secondary-school work toward entrance into college. The examination plan and the certificate plan for solving the question of college entrance are given especial attention. A statement is made concerning the entrance requirements of representative institutions. The author devotes a great deal of space to the development of the present high-school unit as a quantitative method of evaluation of high-school work and traces the movements toward redefining the high-school unit in order to give credit for quality of work. Bibliography, fifty-one references.

3. **Allison, C. W.** "Some Financial and Other Statistics of Illinois High Schools," M.A., 1922. 139 p.

Annual reports from 423 accredited high schools to the High School Visitor's office and returned questionnaires from seventy high-school principals, each from a different county and reporting information with respect to the high schools of his county, furnish the data for this study. The author's purpose was to determine the tendencies of secondary education in the state with respect to such administrative policies as teachers' salaries, cost of instruction, cost of buildings, enrollment, per capita cost, assessed valuation, tax rate, tuition, size of districts, and so forth. Sixteen conclusions are made from the data. The author recommends, among other things, (1) an accurate system of record keeping, (2) an increase in teachers' salaries, and (3) a revision of the tax laws.

4. **Andrew, J. W.** "A Study of the Supervisory Problems of Certain Rural High Schools," M.A., 1926. 104 p.

The problem here was to discover the present tendency toward supervision in a number of rural high schools, to determine the existing supervisory practices exercised in these schools, and finally to devise and select a supervisory program which would prove effective in improving the teaching and learning processes in these schools. The author secured his data by examining educational books, periodicals, and bulletins, by conferring with principals and supervisors, and by actually visiting the schools included in the study. A brief account of the historical development of supervision, a consideration of the aims and technique of supervision, and a review of the arguments for and against rural high-school supervision comprise parts of this thesis. Bibliography, 110 references.

5. **Archer, M. J.** "The Status of Physical Education for Girls in the High School," M.A., 1923. 74 p.  
Data from 229 replies to a questionnaire sent to 550 high schools of the North Central Association were used in determining the present status of physical education for girls in the high school. The replies were classified according to size of the institutions from which they were returned. The five main divisions of the questionnaire are "Physical Examination," "Physical Education," "Course of Study," "Athletic Associations for Girls," and "Physical Education Teachers." The author concludes that "physical education for girls is still in an undeveloped stage in the majority of the schools, especially in the small schools." Bibliography, fifty-nine references.

6. **Atkinson, W. K.** "The Academic and Professional Preparation of Junior-College Instructors," M.A., 1930. 61 p.  
Data were obtained from published statements concerning standards of preparation of junior-college instructors, from published catalogs or bulletins of the seventy-five institutions studied, and from the answers to a letter addressed to thirty superintendents and deans throughout the country. A review of previous investigations of the sort represented by this thesis is included. The statement that "the academic training, as marked by degrees held, places the preparation of junior-college instructors of the country as a whole on a high level," is among the concise statements drawn from the findings. Bibliography, twelve references.

7. **Austin, V. A.** "A Study of the Relative Values of Nature Study and Specific Instruction in Agriculture," M.A., 1911. 55 p.  
Four ungraded rural schools as much alike as possible with respect to the character of the neighborhoods, the attitude of the patrons, and the number of pupils were selected for the experiments of this study. A preliminary test was given to learn the ability of the pupils when the experiment began. A training series of nineteen lessons, nature study in the case of two schools and agriculture in the case of the other two, were given, followed by a final test to determine any differences due to the difference in the two training series. Two of the lessons of the training series, each about twenty-seven minutes long, were given each week. The author concludes that the classes in nature study acquired more general knowledge, a greater variety of information, and facts which opened up more fields of thought than did those in agriculture, but adds that the difficulties encountered during the investigation made the results inconclusive. Suggestions are made for further investigations concerning this problem.

8. **Baer, W. C.** "A Study of Libraries in Illinois High Schools Having an Enrollment of Five Hundred or More," M.A., 1926. 102 p.  
Returned questionnaires from sixty Illinois high schools with a pupil population of five hundred or more form the basis of this study. Statistics from these sixty schools concerning the following items are compiled: (1) the high-school library staff and salaries, (2) room and equipment, (3) high-school library appropriations, (4) contents, selection, and care of books, and (5) library instruction and use of the library. These statistics are grouped under two divisions: those concerning schools with enrollments from five hundred to one thousand and those of schools larger than one thousand enrollment. Among other things the author concludes that (1) every school with an enrollment of five hundred or more should have a trained librarian who is a graduate in library science; (2) all teachers in high school should have at least three semester hours in organization, administration, and use of the library; (3) the salaries paid librarians should be approximately the same as those paid to the teachers in charge of other departments; (4) there should be a state supervisor of high-school librarians; (5) a definite course in the use of the library should be a requirement for graduation. Bibliography, seventy-three references.

9. **Bamesberger, V. C.** "Standard Requirements for Memorizing Literary Material in the Elementary Schools," M.A., 1919. 72 p.

This report is based upon data secured by an examination of fifty courses of study from as many different cities. The cities ranged in population from 25,000 to 250,000 and were fairly evenly distributed over the United States. It was found that 352 poems were mentioned five or more times in the courses of studies. These poems were weighted according to whether they were "suggested for study," "suggested for memory," or "required for memory" by the courses. A record is also presented of the grade in which the poem is recommended to be taught. The courses of study are further analyzed in the following respects: (1) number and names of authors mentioned, (2) frequency with which authors are mentioned, (3) minimum quantitative requirements for memory work, (4) number of poems required to be memorized, and (5) number of poems mentioned less than five times. Bibliography, 102 references.

10. **Barker, A. E.** "An Investigation of the Position of the Dean of Girls in the High School," M.A., 1922. 99 p.

The purpose of this study was "to observe the actual duties and privileges of the deans of girls in the high schools, the conditions under which they are working, and the benefits derived from their efforts for the girls and the school in general." Questionnaires were sent to five hundred of the largest high schools of the United States. Of these 278 were returned and form the basis of the study. After an analysis of the data contained in the questionnaires the author presents facts concerning the general administrative features of the office of dean of girls, duties of the dean of girls, and benefits to the girls and to the school in general as a result of having a dean of girls. A suggestive program for the dean of girls in a high school is given, as well as a résumé of the conferences held by deans of girls in the year 1921-22. Among the conclusions are: (1) One-half of the high schools studied had a dean of girls, while one-third of them distributed the work of the dean of girls among the women teachers. The remaining schools made no provision for this work. (2) Through a dean of girls the individual welfare of the girls is enhanced, the general standards of the school are raised, and the home and school are brought into closer contact. Bibliography, seventy references.

11. **Barnett, N. E.** "A Comparison of Marks Based upon Weighted and Unweighted Items in a New-Type Test," M.A., 1929. 75 p.

Reviews of previous studies are given. Data secured by administering an adaptation of Test III, Form B, of the Gregory Tests in American History to four hundred high-school students of American history form the basis of this study. The items of the test were unweighted. Ten different teachers of American history weighted each of the items according to their own criteria, and the papers again were graded, using each of these sets of weighted scores. The author found that there was a larger amount of disagreement between any two weighted marking systems than there was between the weighted marking systems and the unweighted marking system. The scores of two weighted scoring systems were correlated with the scores of the unweighted system with the following results: (1)  $.9655 \pm .0022$ , and (2)  $.9875 \pm .0008$ . Bibliography, twenty references.

12. **Bassett, V. V.** "Educational Research by Bureaus," M.A., 1925. 76 p.

This is a survey and appraisal of "the accomplishments of bureaus of educational research under the jurisdiction of state institutions and city school systems." The author has attempted "to determine the trend which organized educational research has taken since the first establishment of bureaus and to ascertain whether the types of research now emphasized coincide with aims which characterized the bureau at the date of organization." Data were secured from published reports and from interviews.

Chapters are devoted to the beginnings of educational research bureaus and the functions and accomplishments of these bureaus. University and state bureaus of educational research and city bureaus of educational research are listed, together with facts concerning each. Also included is a list of 230 publications issued by bureaus up to the time of the study.

13. **Bauer, M. M.** "Influence of Fear upon Rate of Learning," M.A., 1930. 44 p.

Four series of white albino rats were used in this attempt to determine the influence fear has upon learning either as an element to which the individual has become adjusted or as an element to which he has not become adjusted, the positive or negative influence that fear has upon what is retained, and how fear shall be rated as a method of motivation. Each series consisted of a control group and an experimental group and were compared for both learning and relearning. A summary of previous experimental work is presented. Certain tendencies indicated by the experiment are discussed in the final chapter. According to the investigation, "fear as a method of motivation may be classified as a fairly good method of motivation in a simple situation, but it is a poor method in a complex situation as regards time and accuracy." No bibliography.

14. **Bear, H. W.** "Athletics in High School," M.A., 1929. 56 p.

The purpose of this study was to determine whether interscholastic athletics affect the scholarship of those who participate and whether desirable character traits are being engendered in those boys who participate in interscholastic athletics as now conducted and controlled. Data from the four-year high schools of Champaign County, Illinois, form the basis of the investigation. It was found that there were 116 athletes in these schools who had a scholastic average above the average grade of the non-athletes and 113 who ranked below this average. Concerning the second part of the problem the author concludes that athletics tend to inculcate the desirable attitudes of courage, self-control, obedience to the rules when not being watched, and the ideal of coöperation. The most serious indictment against athletics was shown to be the unwholesome desire to win games. These conclusions were based upon the author's observations of the athletes in competition and the opinion of the principals and coaches of the particular schools. The author offers several pages of suggestions for making athletics a better laboratory for the development of correct conduct. Bibliography, nine references.

15. **Beatty, A. J.** "Departmental Instruction in Elementary Grades and the Junior High School," M.A., 1915. 74 p.

This study is a survey of the origin and growth of departmental teaching in the elementary grades and the junior high school. The author develops the purposes of the departmental organization and attempts to show the necessity of reorganizing the existing school organization of that time. A number of advantages and disadvantages of the departmental plan are presented and discussed. Considerable attention is given to the details of reorganization, and a number of courses of study and class programs for such a reorganization are discussed. Eight conclusions are given concerning the organization of departmental teaching. Bibliography, forty-four references.

16. **Beatty, A. J.** "A Comparative Study of Corporation Schools as to their Organization, Administration, and Methods of Instruction," Ph.D., 1917. 112 p.

This study, which is an attempt to evaluate the corporation-school type of organization for vocational education, traces the rise and the decline of the old trade-apprenticeship system, describes the historical development and status of factory apprenticeship schools, presents a discussion of the corporation schools of the United States with respect to their

efficiency, attempts to show how greater use can be made of such psychological and pedagogical principles as the experience of public schools and technical schools has shown to be of value, and presents a discussion of the manner in which corporation schools and public secondary schools and technical schools may be mutually helpful in the solution of problems of vocational education. The author secured most of the material for his study through visiting a large number of corporations and studying their organizations, methods of instruction, textbooks, and curricula. The conclusion is made that "the coöperative trade-continuation school is the solution of the problem of vocational education." Bibliography, fifty-two references.

17. Beaver, J. F. "An Analysis of the Content Taught in General Farm Management of Secondary Schools," M.S., 1929. 91 p.

The author's problem was to determine what the content of a course in farm management should be when presented in the secondary school. Data for the study were obtained from literature touching upon the subjects of general education and farm management. From an analysis of this literature, objectives for the course are set up. With these objectives as guides, the content of the course is presented, together with the pupil and teacher activities necessary. The course in farm management is divided into ten major units, and 238 control or classroom objectives, together with classroom exercises for their realization, are set up for these ten units. Materials of instruction are divided into four groups—verbal statements, visual aids, apparatus, and extra-school environment. Bibliography, nineteen references.

18. Bennett, A. Q. "A Study of Minimum Legal Requirements in Professional Courses for Secondary Teachers," M.S., 1928. 92 p.

Addresses and proceedings of the National Education Association, proceedings of the associations of colleges and secondary schools, United States Bureau of Education bulletins, published materials and letters received from the different state departments of education, and other sources provide the data for this study. The different requirements in professional courses of each state are discussed. It is concluded that (1) Colorado has the highest minimum legal requirement (twenty semester hours) of any state; (2) California requires twelve semester hours, but six of these must be of graduate character; (3) Mississippi is the only state which has no minimum requirement for certification; (4) each state has adopted terms by which to designate the kinds of certificates issued, but these vary widely among the states; (5) certificates are issued on the following three bases: credentials from institutions of higher learning, by examination in academic and professional subjects, and transfer of certificates from other states; (6) associations of colleges and secondary schools exert a positive influence on minimum legal requirements of certification. Bibliography, fifty-nine references.

19. Bentley, R. C. "Individual Project in the Liberal College," Ph.D., 1917. 231 p.

This study, which "lies within the general field of higher education, but within the junior college, as distinguished from the graduate and professional schools, . . . proposes to test the claims of the 'academic' college to a separate institutional existence, . . . to sound the claims of the college to a pedagogy of its own, and ultimately to reach actual precepts of college pedagogy." The three main divisions of the research deal with the philosophy of education with respect to collegiate pedagogy, with the project as a method of collegiate learning, and, finally, with principles of collegiate education. Forty-two principles of collegiate project-teaching are stated and twenty-nine precepts of collegiate project-teaching tentatively formulated. No bibliography.

20. **Berninger, H. J.** "A Study of Preferences of Pupils for High-School Subjects in Relation to the Factors Chiefly Conditioning the Preferences, and in Relation to the Pupils' Achievement in the Subject," M.A., 1917. 54 p.

This investigation sought to find what factors conditioned pupils' preferences for high-school subjects, how permanent these preferences are, and whether a considerable degree of relationship exists between the preferences and achievement. Returned questionnaires from 1,410 pupils of six different Illinois high schools form the basis of this study. The author concludes that (1) utility of a subject and a like or dislike for it are the factors which most influence pupils' preferences; (2) preference is permanent and defined in the minds of the pupils; (3) preference and achievement have a positive correlation which in most cases is sufficiently high to insure reliability. Bibliography, eight references.

21. **Beumer, E. H.** "Centralizing Tendencies in State Educational Administration as Reflected in State Constitutions," M.A., 1925. 134 p.

The purpose of this thesis is (1) to determine "if there is evident in the constitutions of the states a tendency to centralize state administration in the direction of placing more power and responsibility for education in the hands of the direct state agencies, the chief state school officer, and the state board of education," and (2) to analyze the recent state laws of Connecticut, Maryland, New Jersey, and New York "with the view of determining the extent to which centralization in educational administration has been carried in these states." Use is made of general references, specific studies on centralizing tendencies in educational administration, and individual state constitutions. Chapters are devoted to the historical background, to the chief state school officer, and to the state board of education. Bibliography, forty-four references.

22. **Binnion, F. W.** "The Legal Status of Public School Finance in Illinois as Determined by Court Decisions," M.A., 1927. 77 p.

Decisions of the Illinois Supreme Court and the appellate courts, Illinois laws, Illinois constitutions, and the report of the Educational Finance Inquiry furnish the data for this investigation. The study falls into two general divisions: general or legislative control of schools, and local control of schools. Especial emphasis is given to the latter division. The legal status of the following as determined by court decisions is given: (1) legislative control of public school finance in Illinois, (2) fiscal administration of the school township, (3) fiscal administration of the school district, (4) school funds, (5) school indebtedness, and (6) school contracts. Six pages of conclusions are given. Bibliography, 125 references to court decisions.

23. **Black, H. B.** "Methods Used by the Different States in Regulating High-School Athletics," M.A., 1924. 29 p.

Questionnaires were sent to the principals of three high schools in cities of ten to twenty-five thousand population in every state of the United States. Replies were received from every state in the union, and with one or two exceptions copies of the state regulations for high-school athletics were received from all the states. The author reviews the conditions existing in each state and in the final chapter presents a suggested constitution and a set of by-laws for a state high-school athletic association.

24. **Boe, O. G.** "The Relation Between Size of High School Attended and Scholastic Success in College," M.A., 1930. 61 p.

After an analysis of record cards of a sampling of one thousand students attending the University of Illinois from September, 1924 to June, 1929 with respect to the high school attended, the author concludes

that the size of high school has practically no effect on scholastic success in college. Two groups are considered—honor students and failures. A critical review of related studies comprise one chapter. Bibliography, twenty-six references.

25. **Bole, S. J.** "Penmanship in Grades V, VI, VII and VIII of the Urbana Public Schools in 1879 and 1912," M.A., 1912. 58 p.

The object of this study was to compare the quality of penmanship in schools of the same community for the years indicated. Samples of writing from 30 per cent of the students of each grade for the two years form the basis of this study. This 30 per cent comprised the best writers of each grade. Three different persons rated the writing samples first with the aid of the Thorndike writing scale and later by the Ayres scale. The average of these ratings represented the rating of each sample. It is concluded that the pupils enrolled during the year 1912 were better writers by one quality of the Thorndike scale than were the pupils enrolled in 1879. The author states that it is probable that the following factors contribute to the better writing of 1912: (1) added length of school year, (2) fewer pupils per room, and (3) superior system of penmanship used in 1912. Bibliography, eight references.

26. **Bottenfield, E. O.** "A Program of Educational Guidance for Medium Sized High Schools," M.A., 1928. 76 p.

Data concerning twenty-five accredited high schools were obtained from the official report of the North Central Association, published June, 1927, from official reports of the High School Visitor, published by the University of Illinois, and from published and mimeographed material furnished by the individual schools. The investigator is of the opinion that "a program operating under the policy of 'enlightenment' will be best adapted to the needs of an educational institution." A number of conclusions are drawn with respect to the schools considered in the study. Bibliography, twenty references.

27. **Boyce, A. C.** "Qualities of Merit in Secondary-School Teachers," M.A., 1911. 23 p.

This study is based upon the ranking of teachers by their superiors in twenty-seven different schools. Three hundred and forty-three teachers were rated, each being rated as to general merit as a teacher and also in terms of twenty-one specific qualities of merit. Pearson's formula for finding the relation between qualities not quantitatively measurable was applied to these ratings. The author concludes that (1) sex has little or no effect upon teaching efficiency; (2) the best teachers are found in oldest established subjects; (3) professional training and experience are important factors; (4) instructional skill, results, stimulation of individuals, intellectual capacity, and discipline rank highest among the specific qualities of merit.

28. **Brainard, A. F.** "Directing the Doing of Learning Exercises in Teaching Physical Activities," M.A., 1930. 84 p.

This is an attempt to determine (1) the essential phases of the teacher's task as an instructor in physical education, and (2) the procedure that should be employed in carrying out each of these phases. Data were secured from reports of psychological experiments, writings of prominent physical educators, writings of leaders in the field of psychology and general education, observations made by the writer, and personal interviews with prominent men in the field of physical education. The titles of the chapters are "Determining Objectives," "Devising and Selecting Appropriate Learning Exercises," "Motivating the Doing of Learning Exercises," "Directing the Doing of Learning Exercises," "Diagnosing Individual Difficulties and Planning Remedial Instruction," and "Directing Class Activities." Bibliography, twenty-one references.

29. **Brandenburger, J. P.** "Certain Phases of Two- and Three-Year High Schools in Illinois," M.S., 1929. 76 p.

It was the purpose of this study to give as accurate a description as possible of the present conditions of two- and three-year high schools in Illinois. Records and reports of the State Department of Public Instruction furnish the major portion of the data. The study is limited to the period since 1850. Statistical facts are presented concerning the following: condition of buildings, special equipment for certain courses, library conditions, qualifications of principals, tenure, salary and teaching load, distribution of pupils, curricula of two-year schools, and curricula of three-year schools. The author gives conclusions concerning the following aspects of two- and three-year high schools: (1) general conditions, (2) special equipment, (3) school libraries, (4) tenure of teachers and principals, and (5) curricula. Bibliography, fifteen references.

30. **Brent, J. A.** "A Study of the Growth of Public Education of the Blind in the United States," M.A., 1923. 146 p.

Census reports, state constitutions, reports of schools for the blind, and other literature dealing with the education of the blind form the basis for this study. The author discusses the origin and development of education of the blind in the United States, giving especial attention to the first schools, attendance, development of a system of raised print, development of printing houses and libraries for blind persons, cost of education for these persons, and the expansion of the curriculum and the development of forms of instruction given at institutions for the blind. Bibliography, forty-eight references.

31. **Bricker, G. A.** "Laboratory Exercises and Methods in Secondary Agriculture," M.A., 1910. 90 p.

The first part of this thesis is a strong plea in favor of agriculture being given an independent place in the secondary-school curriculum. The author then considers the psychological factors which might determine the sequence of the materials to be taught. The course for agriculture is organized under (1) plant studies, (2) animal studies, (3) machine studies, (4) soil studies, and (5) conditions of plant growth. Recommendations are made concerning the kind of laboratory exercises to be used, the type of notes to be written on the exercises, and the direction of the field work. No bibliography is appended, but many references are given throughout the study.

32. **Bright, L. O.** "An Analysis of the Visual Aids in High-School Chemistry Texts," M.A., 1925. 102 p.

Thirteen hundred illustrations found in 4,442 pages represented in eleven elementary chemistry textbooks were analyzed with respect to their classification, placement, distribution, and relation to subject-matter. Twenty-seven general conclusions are derived, and fifteen recommendations are made.

33. **Brock, I. M.** "Theories and Practices in the Construction of Secondary-School Curricula," M.A., 1926. 147 p.

The three-fold purpose of this thesis is: "first, to evaluate in a comparative manner curriculum theories; second, to describe and evaluate recent curriculum practices; and third, to propose a method of further procedure in the field." Sources of data used were the writings of various authors, and bulletins, monographs, and courses of study issued by boards of education and educational organizations. Theories of curriculum construction were classified and analyzed with respect to principles contained, and curriculum practices were analyzed as to method pursued and results accomplished. The study includes an analysis of the traditional curriculum as well as a description of recent changes in the nature of the high-school

population and a discussion of some methods and problems of meeting the resultant demands made upon the curriculum. The final chapter contains a general summary of theory and practice, eleven assumptions relative to the construction of secondary-school curricula, and nine proposed principles of curriculum construction. Bibliography, forty-four references.

34. **Broom, M. E.** "The Parent-Teacher Association with Specific Reference to Illinois High Schools," M.A., 1924. 103 p.

It is the purpose of this study to trace the origin and development of the National Congress of Parents and Teachers, to review the purpose and work of the national organization and of local associations, and finally to present a report of the membership and activities of the parent-teacher association in the Illinois high schools and of the organization and administration of these associations. Data were secured from publications of, and from correspondence with, the National Congress of Parents and Teachers, and from replies to questionnaires sent to Illinois high-school parent-teacher associations.

35. **Brown, V. I.** "The Rural One-Room School Situation in Iroquois County, Illinois," M.A., 1924. 46 p.

Regular school reports of the county, the 1920 United States Census, the *Illinois Blue Book*, the Illinois school reports, and a returned questionnaire from 188 of the 206 schools of the county furnish the data for this study. Using the obtained data the author organizes his discussion around the following phases of the school situation: grounds and buildings, school equipment, teachers, and pupils. Most of the discussion refers specifically to the school year 1922-23. The author concludes that (1) the buildings and equipment are not modern; (2) a great majority of the teachers are untrained and inexperienced and do not expect to remain in the profession more than a few years; (3) adequate supervision under the existing conditions is impossible; (4) the smaller schools should be discontinued; (5) consolidation is feasible as a result of the fine system of hard roads.

36. **Brown, W. L.** "The Relationship of the Superintendent and the Architect to Schoolhouse Planning," M.A., 1928. 84 p.

After defining the term "proper relationship," the author attempts to answer the following four specific questions with respect to the relationship of the superintendent and the architect to schoolhouse planning: (1) "How can the proper relationship between the superintendent and the architect exist during the process of schoolhouse planning?" (2) "What are the essential duties of each?" (3) "What are the factors preventing this relationship?" (4) "What effect does improper relationship have upon the finished school building?" Sources of data included are letters received from superintendents and architects, and bulletins, pamphlets, proceedings of the National Education Association, textbooks, periodicals, documents, and school reports. Concise statements in answer to the four questions above are presented, and recommendations leading toward more effective coöperation between the educator and the builder are proposed. Bibliography, thirty-two references.

37. **Browne, R. B.** "The Present Status of Herbartianism in the United States," M.S., 1929. 52 p.

After presenting a brief review of the life and teachings of Herbart and giving an account of the development of his doctrines, an attempt is made by the author of this thesis to formulate the chief characteristics of the Herbartian belief. The author makes a selection of sixteen representative books and, with the chief characteristics in mind, examines these books to determine the present status of the Herbartian theory in the United States. The conclusions drawn from this survey point out the extent to which the theory has been found antiquated. Bibliography, fourteen references.

38. **Broyles, W. A.** "A Suggested Program for First-Year Graduate Work in Agricultural Education," Ph.D., 1925. 200 p.

The problem of this thesis was to determine from the purposes stated in the organization of teacher-training departments and from a study of the kinds of positions accepted by graduate students upon leaving college the educational objectives involved in agricultural education. The abilities necessary for the successful performance of the duties involved in these positions were analyzed and grouped as course objectives. Current practice with respect to courses offered to graduate students in agricultural education was examined, and these courses were studied in relation to the abilities to be engendered, in relation to the requirements of the college curriculum, and in relation to the training of teachers in service. A tentative course of study based upon an examination of the objectives revealed by a study of the aims of graduate work in this particular field, and by a study of practice and opinion, and embodying three distinctly graduate courses is recommended for first-year graduate work in agricultural education. The Appendices present an occupational analysis of the job of a teacher of agriculture, thirty reviews of masters' theses in agricultural education, and a list of masters' theses in agricultural education. Bibliography, forty-four references.

39. **Buckardt, H. L.** "Effectiveness of a Decade of Vocational Agriculture in Illinois," M.S., 1929. 70 p.

The author proposed to measure the effectiveness of a decade of vocational agriculture as indicated by the occupational distribution and certain success factors of former students. Bulletins of the state and federal boards for vocational education and returned questionnaires from seventy-six instructors of vocational agriculture and forty-five farmers who had studied vocational agriculture provide the major portion of the data for this study. The author concludes that (1) over 65 per cent of the students who took vocational agriculture in Illinois during the first ten years after the passage of the Smith-Hughes Law are now engaged in agriculture; (2) the number of students who have received instruction annually in vocational agriculture has increased over eighty-fold since the beginning of Smith-Hughes instruction; (3) a large majority of former students reported that their work in vocational agriculture influenced them to become farmers and that it has increased their earning capacity as well as made their work more enjoyable; (4) less than 25 per cent of the students trained in vocational agriculture go to college. Bibliography, fifteen references.

40. **Burgess, T. O.** "High-School Teachers' Meetings," M.S., 1923. 54 p.

Returned questionnaires from 255 principals of North Central high schools form the basis of this study. Of these 255 schools, 121 had enrollments of less than 500, 87 had enrollments between 500 and 900, and 47 had enrollments of 1,000 or more. The author secured data concerning the general practice of conducting high-school teachers' meetings, the general attitude of administrators and teachers toward teachers' meetings, and methods used in conducting the meetings. One of the conclusions states that the "leader of a teachers' meeting should be strong; able to coördinate the work; be prepared professionally and academically, and be able to teach; and should devote his time primarily to the educational aims." Samples of school bulletins are given in the Appendix. Bibliography, twenty-nine references.

41. **Busby, Lois.** "A Study of Failures in Algebra I," M.A., 1930. 92 p.

The purpose of this investigation, made from the records of the Algebra I grades for three consecutive semesters in the Danville, Illinois, High School, was, first, to determine the correlation between achievement in arithmetic and achievement in algebra as measured by teachers' grades; second, to determine whether or not, in general, failures in Algebra I may

be predicted before students enter high school; third, to discover the causes and the effects of failure upon the student and the school; and fourth, to recommend a plan for saving many of the anticipated failures. Additional data for the study were secured from teachers who had had in their classes the students whose records were used, from a questionnaire which was given out to the entire mathematics department of the Danville High School, and from published literature in this field. On the basis of the findings, the author suggests that algebra classes be sectioned on the basis of I. Q. and arithmetic grades, with provision for supervised study. Bibliography, eighty references.

42. **Bussell, N. E.** "The History of Physical Education in Public Schools and Colleges of the United States," M.A., 1921. 65 p.

In this study the author traces the development of physical education in the public schools and colleges of the United States, giving especial emphasis to this development in the Boston public schools, the New York schools, women's colleges, and normal schools. State and federal legislation for physical education is reviewed. Changes in subject-matter and the rivalry of the German and Swedish systems receive attention. It is stated that "the present tendency is to expand the functions of the department of physical education to include the teaching of hygiene, gymnastics, and informal activities, such as games, dancing, and sports. Bibliography, fifty-eight references.

43. **Byerley, J. R.** "A Comparison of the Nature and Organization of the Content of Textbooks on Secondary-School Biology," M.S., 1930. 136 p.

Nine textbooks in high-school biology, none of which were copyrighted before 1924, were analyzed to determine the nature, amount, and organization of their content. A careful analysis of each of the prefaces to the texts was first made, after which an analysis of the content proper is presented. The author found that there are thirty-six different major divisions of subject-matter in the various texts. The number of major divisions in the different texts varies from three to eleven. Authors of the texts differed widely in their opinions concerning what major divisions of biology should be included in high-school biology and at what point in the sequence a certain division should be introduced. It is concluded that there is no best text on high-school biology. The author states fourteen desirable features of textbooks in biology. Bibliography, twelve references.

44. **Campbell, W. H.** "Content, Methods, and Correlation of First-Year Algebra," M.A., 1910. 47 p.

The author states that it is the purpose of this study to consider (1) the pupil who is to study algebra, (2) the value of the subject to the pupil, (3) the aim and (4) content of the course, and (5) the method to be employed to realize the aim set up. These topics are treated in order. A syllabus of the proposed course in algebra is given, and the correlation of this subject with arithmetic, geometry, physics, and industrial arts is urged. Selected bibliographies are given at the end of each section, about forty-five references in all.

45. **Capps, A. G.** "Analysis and Measurement of Spellers," Ph.D., 1921. 163 p.

The problem of this thesis was to examine and analyze the subject-matter and methods of presentation found in ten spelling textbooks designed for use in the elementary schools of the United States. The study is limited to an examination of the extent, the selection, and the gradation of the vocabulary; to the repetition of words; and to certain forms of presentation. Much disagreement among the writers of the textbooks studied with respect to the different aspects of the problem examined is revealed in the findings of this investigation. A shorter method of comparison of the selection, gradation, and repetition of the word offerings in the grades

than the one used in this study is presented. This suggested method is based upon Anderson's three thousand words and Ashbaugh's Iowa Spelling Scales, and involves the use of a check list of words, the purpose of which is to determine how many of these words appear in the spelling text under examination. As a final feature of the study, the author offers a number of suggestions for further research projects in the field of spelling. Bibliography, twenty-three references.

46. **Caswell, Omar.** "Origin and History of the Teachers' Institute up to the Middle of the Nineteenth Century," M.A., 1914. 74 p.

The three main divisions of this study deal with (1) the origin of the teachers' institute, (2) the teachers' institute held under the direction of the school officials without legal sanction, and (3) the teachers' institute held under the direction of the school with legal sanction. Under the second division the author gives especial emphasis to the development of the institute in Massachusetts, Connecticut, New York, Rhode Island, and Ohio. It was concluded that the teachers' institute, like many of the institutions of society, is the result of growth and development, and its establishment cannot be attributed to any one person or to any particular year. Bibliography, about forty references.

47. **Clapp, F. L.** "Elements of Personality," M.A., 1912. 37 p.

A general discussion of the meaning of personality based upon the statements of noted educators is first given. The opinions of eighty-two educators as to the ten most desirable qualities of teachers were obtained. Blanks were then sent to school administrators who were asked to rate their six best teachers according to the previously determined qualities of merit and also as to general merit as a teacher. Of the returned blanks 125 were used in the study. The rankings in the various qualities were correlated by use of Pearson's formula for correlating qualities not quantitatively measurable. The author concludes that (1) the relative importance of the several qualities was different when they were considered as factors of personality from that when they were considered as elements of general merit; and (2) training and experience are helpful factors in the development of a strong personality. No bibliography.

48. **Clearwaters, J. H.** "A Study of High-School Failures in the Ninth and Tenth Years," M.A., 1926. 57 p.

Data with respect to failing grades in the ninth and tenth years of the high school were collected, tabulated, and evaluated with a view to determining the degree of failures in the different subjects and the degree of failures for all subjects. The data were secured from three Illinois high schools and from readings listed in the bibliography. A critical review is given of previous studies of high-school failures. According to the author, the "outstanding result of this investigation is the fact that from 50 to 70 per cent of the failing grades given in the ninth and tenth years of the high school are within nine to fifteen points of the passing grade." Bibliography, thirty-two references.

49. **Clements, J. L.** "Secret Societies in the Public Schools," M.A., 1926. 73 p.

After tracing the origin and development of secret societies in high schools and presenting the legal status of, and opinions of educators with regard to, these societies, the author calls attention to Dewey's two-fold criterion for education in a democratic society and his criteria for measuring the worth of any "mode of social life," outlines and determines the validity of the arguments for and against secret societies, measures by Dewey's criteria the kind of society the valid arguments show the society to be, names and discusses policies which have been used in dealing with secret societies, and finally considers a procedure to eliminate the organizations. Educational periodicals, books on secondary education, histories of education, a book on secondary-school fraternities in America, and leaflets

and bulletins of the U. S. Bureau of Education were consulted for data. It is the author's conclusion that secret societies as the majority of them exist are detrimental to the aims of democratic education and should be prohibited or eliminated. Bibliography, seventy-four references.

50. **Cobb, J. L.** "A Comparison of the Content Material of Civic Texts with the Aims of Education," M.S., 1925. 62 p.

It was the purpose of this study "to examine and analyze the content material of the textbooks forming the basis of the civics course in our modern high schools; to compare this material with the objectives laid down by the modern educators, to determine, whether in order to meet the new viewpoint, this material will have to be entirely scrapped or merely adjusted as regards its minor phases and its place in the curriculum." Six civics texts were analyzed as to the amount of space given to the different divisions of the local, state, and national units of government. The author concludes that "after due examination it seems that the present material can be only partially utilized in the reconstruction of our civics curriculum." Bibliography, forty-five references.

51. **Colvin, Carl.** "A Score Card for Judging the Success or Failure of Home Projects in Agriculture," M.S., 1920. 67 p.

A general discussion of the development of score cards is given. One hundred and twenty-eight selected score cards dealing with nine different topics in the field of agriculture form the basis of this study. After a careful examination of these score cards, noting their weaknesses and points of strength, the author develops a score card to be used as a teaching device in the use of the project method and as a means of judging home projects. Replies to 260 letters sent to teachers of agriculture were used in determining the content and rating of the score cards. Suggested score cards are given in the Appendix. Bibliography, twenty-nine references.

52. **Cook, W. A.** "The American Indian; A Study in Race Education," M.A., 1911. 191 p.

Treaties of the United States with various tribes of Indians, Federal statutes, and the annual reports of the Secretary of the Interior, of the Commissioner of Indian Affairs, and of the Superintendent of Indian Schools furnish the data for this study. Among the problems discussed are: the importance of Indian educational ideals, education of the Indian during the colonial period, the administration of Indian schools, religious forces in Indian education, Indian reservation schools, the non-reservation plan of Indian education, and the industrial element in Indian education. It is concluded that (1) race education demands a modification of current administration; (2) race education must begin where indigenous culture has left off; (3) the non-reservation school is most valuable in the beginning of the elevation of a race; (4) vocational education should be more strongly emphasized in Indian schools; (5) native teachers should be utilized as much as possible; (6) race education must lead, not drive. Bibliography, eighty-two references.

53. **Corey, S. M.** "Historical Development of the Methods of Teaching History in the Elementary and Secondary Schools of the United States," M.A., 1927. 87 p.

Histories of education, special works on history teaching, history-textbook prefaces, committee reports, and contemporary magazine articles are the most important sources consulted in the preparation of this study. The author traces the major changes that have taken place in methods of teaching history, considers the educational conceptions upon which these changes have been based, and enumerates the most widely practiced methods of teaching history today. Fifty unannotated references are given in the bibliography.

54. **Corey, S. M.** "The Relation Between Compulsory Physical Exercise and the Ability of the White Rat to Learn and Relearn an Elevated Skeleton Maze," Ph.D., 1930. 43 p.

In an attempt to throw some light upon the relationship between participation in athletic sports and scholastic ability, this investigator has attempted an analysis of animal behavior by determining experimentally the relationship between compulsory physical exercise and the ability of the white rat to learn and relearn an elevated skeleton maze. Three experimental groups of white rats, each with its own control, were used in the experiment. Both experimental and control subjects were given runs in the maze, but, in addition, the experimental subjects were given exercises in a rotating cage. The experimental and control groups are compared with respect to a number of particulars. General conclusions of the study reveal that "compulsory physical exercise did not have a consistent or noticeably peculiar effect upon learning which involves the activity of the whole body when rats were used as subjects and an elevated skeleton maze as a test of learning ability." No bibliography.

55. **Cornell, O. L.** "The Analysis and Evaluation of the Nature and Organization of the Content of Certain General-Science Textbooks," M.S., 1929. 87 p.

The author proposed to analyze and evaluate the content and organization of a representative group of ninth-grade general-science textbooks, and to develop a method of analysis and evaluation which might be used in the judging of any general-science textbook. A review of previous studies is given. An examination of the aims of general-science textbooks as stated by the authors revealed that they do not agree on the aims for this course. It is concluded that more references, study suggestions, problem projects, statements of objectives, and outlines are found in the later books on general science than are found in the earlier ones. The author gives a statement of the amounts of the different kinds of material included in each of the texts, outlines the organization of the content, and discusses the various visual aids used in the texts. Bibliography, forty-seven references.

56. **Cox, F. W., Jr.** "The History of the High School Conference of Illinois," M.A., 1921. 73 p.

Most of the data for this study were found in the proceedings of the Illinois High School Conference. A general historical sketch is given of the general and joint sessions, as well as an account of the development of the sectional meeting. Considerable attention is given to the work of the English and Latin sections, which the author uses as examples. It is concluded that (1) the changing teaching personnel is a hindrance to the development of the conference; (2) the large attendance at the meetings makes them no longer conferences but conventions; (3) there has been lack of coordination between the different parts of the organization; (4) constructive work of the conference has been buried in a mass of proceedings rather than published in a clear and concise manner by the different sections.

57. **Craine, M. K.** "Changes in the American College Curriculum Between 1825-1850," M.A., 1931. 155 p.

College catalogs for the years 1825 to 1850; histories of various colleges; contemporary magazines, such as the *American Journal of Education*, the *Quarterly Review*, and the *North American Review*; U. S. Bureau of Education "Circulars of Information," and textbooks were the sources from which most of the data for this study were obtained. Changes in the entrance requirements, and in the various departments—languages, sciences, mathematics, history and political sciences, philosophy, and religion—are considered. The departmental changes revealed by this

study appear to be of a "very conservative character." Bibliography, extensive.

58. **Crawford, C. E.** "The Effect of Participation in Extra-Classroom Activities on Scholarship of High-School Pupils," M.A., 1929. 64 p.

The data for this study, in which participating and nonparticipating groups of boys and girls were compared with respect to intellectual ability, scholarship, and degree of correlation between intelligence quotient and scholastic grades, were secured from three Illinois high schools. The scholarship records of the participating students during participating semesters were compared to the records of these students during nonparticipating semesters. The author is of the opinion that ". . . participation in extra-classroom activities has not affected the scholastic attainments of the participants to any appreciable degree. In fact, the slight differences found are in favor of the participating students." No bibliography.

59. **Croxton, W. C.** "A Study of Subject-Matter, Organization, and Methods of Teaching General Science," M.S., 1923. 67 p.

This investigation is a study of the organization of the general-science course in the light of educational theory, an interpretation of environmental topics in terms of scientific facts and principles, a study of methods adapted to teaching scientific principles through environmental approaches, and an attempt to determine systematically the program of science studies which best prepares the student for the teaching of general science. A suggested general-science program based upon the analysis of subject-matter contained in twenty-two textbooks is presented. Bibliography, 185 references.

60. **Cummins, R. A.** "Nineteenth Century Educational Ideals, and Their Reaction on Religion in the United States," M.A., 1910. 45 p.

The author reviews the educational ideals of Plato, Aristotle, Cicero, Quintilian, Alcuin of York, Erasmus, Bacon, Comenius, Milton, Locke, Rousseau, Pestalozzi, Froebel, and others, and points out their influence on the education of the nineteenth century. The effect of religious sanction on education is discussed. A final chapter concerns the reaction of education on religion. The author concludes that "while religion has exerted a powerful influence in the formation of educational ideals, it is now in turn being modified in a most profound and wholesome way" by education, and then adds that "education cannot get along without religion any more than the child can get along without the mother." Bibliography, ninety-two references.

61. **Dale, C. S.** "Universal High-School Training in Illinois as an Objective," M.A., 1920. 41 p.

The purpose of this study was to predict the magnitude of the universal high-school plant in the state of Illinois in 1930, the "universal high-school plant" being defined in terms of the number of high-school buildings, the number of students enrolled, and the number of high-school teachers in service. Two methods were used in determining the high-school population of 1930—first, that based upon the population of the state in 1920; and second, that based upon the first year elementary-school enrollments in 1919-20. It was concluded that in 1930 the universal high-school plant would consist of 3450 units with an enrollment of 455,000 pupils, employing a teaching corps numbering 23,000.

62. **Daniels, M. A.** "A Study of Standards for Immediate or Classroom Objectives, Materials of Instruction, and Pupil Activities, for Two Years of High-School Clothing and Textiles, in Terms of the Objectives of the North Central Association," M.S., 1927. 96 p.

Data used as the basis of this study were selected from published materials in the field of curriculum-making and from representative courses of study and syllabi for home economics from thirty high schools and five state departments, and from other sources. Using the educational objectives

of the North Central Association as a basis, the author first arrives at the classroom objectives for clothing and textiles. The next step is to specify the materials of instruction which are needed to realize these objectives, together with the pupil activities which utilize these materials. In the chapter of conclusions a list of fifty-eight separate abilities to be taught, a set of criteria for evaluating materials of instruction, and a set of criteria for evaluating pupil activities are given. Bibliography, thirty references.

63. **Davis, L. K.** "The Organized Direction of Boys' Time Within and Without the Modern High School," M.A., 1926. 139 p.

Facts regarding how high-school boys spend their time were gathered by means of a questionnaire and from records of vocational classes and from school records. Three large Illinois high schools were included in the investigation. In addition to presenting certain significant facts about high-school boys and summarizing and evaluating existing systems of guidance, the author attempts to formulate a plan of guidance for the large high school. Included in the plan is an enumeration of the suggestions received from facts about high-school boys, literature on guidance, and a study of the existing systems of guidance; aims of a guidance program; and a defence of the proposed plan. According to the author, "a much more comprehensive investigation in order to determine the results of guidance activities should be made before it is possible to justify any plan of guidance." Bibliography, thirty-nine references.

64. **Dodge, A. F.** "Psychological Test for Executive Ability," M.A., 1929. 57 p.

This study was based upon the scores obtained from the Carnegie adaptation of the Downey will-temperament tests and from Moore's test for aggressiveness. There were two groups of subjects: (1) sixteen student military officers, and (2) eighteen factory foremen and assistant foremen. The student officers were ranked for executive ability by a commanding officer, and the foremen were ranked by two of their immediate superiors. The test scores were correlated with the rankings. The author concludes that the tests used have value as a measure of executive ability because of (1) the high correlation ( $.74 \pm .08$ ) between the scores of the military group and their ratings, (2) the very general agreement between the results obtained from the individual tests when given to the two groups of executives, and (3) the positive correlation obtained ( $.45 \pm .13$ ) between scores of the foremen and their rating.

65. **Dolch, E. W.** "The Acquisition of Meaning in Children's Reading," Ph.D., 1925. 212 p.

The author defines the purpose of this study as "first, to determine how many ideas are presented to children in a set of school readers, in so far as the ideas are represented by different words used, and second, to find out to what extent the children actually acquired the ideas, as determined by their knowledge of the words used." Using the data secured from an analysis of the first five books of a set of school readers, the investigator calls attention to a number of outstanding facts with regard to the different meanings conveyed by a given word, the number and repetitions of meanings in the reading material examined, the difficulty of words as to meaning, and so forth. Description is given of the construction and use of various tests designed for the purpose of measuring a pupil's knowledge of meanings. The author is of the opinion that "insufficient attention has been given to the teaching of word meanings in the teaching of reading." Bibliography, thirty-three references.

66. **Douglas, D. D.** "The Sources and Distribution of Public-School Funds in the State of Illinois," M.S., 1929. 131 p.

Illinois Supreme Court reports, reports of the State Superintendent of Instruction, and educational literature relative to the problem form the basis of this study. The author shows that the sources of school moneys

in Illinois are Federal, state, county, township, and district, and analyzes each of these sources into its separate items. The history and present status of apportionment of funds in Illinois is set forth, as well as the present plans of Maryland, California, and Massachusetts. It is concluded that the district contributed 93.35 per cent of the moneys expended for school purposes in 1926 and that the apportionment plan in use in Illinois is far from satisfactory. The author recommends (1) that the present property tax be abandoned and a more scientific method be adopted, (2) that the county be adopted as the unit of local control, (3) that the tax rate be determined annually, (4) that a minimum school year of nine months be maintained, and (5) that the tax and bonding power now enjoyed by the district be extended to the county. Bibliography, twenty-nine references.

67. **Dufrain, F. J.** "The Causes of Elimination in High School," M.A., 1922. 53 p.

It was the particular task of this study to determine as far as possible the reasons why 201 pupils out of a class of 367 in an Illinois high school left school before graduation. The data were obtained from the school records of the pupils studied and from returned questionnaires which were sent to these pupils five years after they entered high school as freshmen. In the conclusions twenty-eight specific statements are made, among which is the following: "Both the school records and the returned questionnaires indicated that the five most important reasons for leaving high school are (1) to earn money immediately, (2) to work to support family, (3) failures in high-school subjects, (4) general dislike for school, and (5) poor health." Bibliography, seven references.

68. **Duguid, Genevieve.** "The Guidance of Supplementary Reading in the High-School English Class," M.S., 1927. 84 p.

A survey of the development of guidance of supplementary reading as it has reflected itself in articles in educational periodicals, early studies and publications, and so forth, is given. The author then presents the status of supplementary reading in the present day English class as represented by 212 returned questionnaires which were sent out by the Illinois Association of Teachers of English to teachers of English. In the final chapter is found a critical evaluation of the six most generally used methods of reporting supplementary reading. The author states nine conclusions concerning the methods in handling book reports. Bibliography, about seventy-five references.

69. **Earnest, W. W.** "A Survey of the Public Schools of Champaign, Illinois," M.A., 1924. 267 p.

This survey attempts to determine the extent to which the Champaign schools are giving to the children the best education possible considering the resources at their command; if failing, to learn in what particulars they are failing; and finally to suggest certain improvements that may be found desirable and feasible. School objectives in general, courses of study and textbooks, the community, provisions of income by the district, estimating, accounting, and reporting, buildings and grounds and equipment, administration and supervision, the school enrollment, the teaching corps, the quality of pupil material, and measurable results of instructions receive consideration in the study.

70. **Eden, R. K.** "Grammar and Grammarians in France, 1 A.D.-1500, as Revealed in the *Histoire Litteraire de la France*," M.S., 1925. 47 p.

This study gives a "brief summary of the status of grammar and the lives and writings of the various authors whose influence helped to make the history of grammar and grammarians in France from the first to the fifteenth centuries." The content of the study is based for the most part

upon the thirty-three volumes of the *Histoire Litteraire de la France*, which includes the years 1865-1898. Bibliography, eleven references.

71. **Ederle, Helen.** "A Partial Study of Guidance Problems in Higher Institutions of Learning," M.A., 1929. 150 p.

The purpose of this study was to present the practices relative to thirteen guidance problems in eleven mid-west institutions of higher learning, to determine the trends in guidance in these institutions, and to show the relationship between guidance in high school and that during the first two years of the university course. The study was based upon the personal interviews with officials of six state universities, three private institutions, and two teacher-training colleges, together with the supplementary literature supplied by these persons. It is concluded that the treatment of the guidance problems varies widely in the different institutions. Eight specific guidance trends are enumerated. It is stated that the evidence points in the direction of joint responsibility of high school and college for the promotion of guidance programs. Bibliography.

72. **Edwards, F. G.** "High-School Libraries in Illinois," M.A., 1922. 205 p.

The aim of this study was three-fold: (1) to show the actual conditions in high-school libraries of Illinois, (2) to offer suggestions for improving the high-school library situation, and (3) to compile a reliable book list. Data for the first two divisions were obtained by sending a questionnaire to four hundred Illinois high schools. These schools are classified into four groups according to the enrollments. Statistical facts are presented in answering about twenty specific questions concerning the libraries of the high schools studied. The author makes suggestions concerning each of these questions. An extensive book list, which was compiled from different state lists, is presented. Bibliography.

73. **Engelhart, M. D.** "The Objectives of High-School Chemistry," M.S., 1926. 66 p.

The problem here was to determine the controls of conduct that high-school chemistry should engender under each of the rubrics, specific habits, knowledge and the ability to use it, and general patterns of conduct, and to attempt an estimate of the extent to which the high schools are successful in engendering the controls of conduct specified by these objectives. Using as sources the opinions of others as stated in the literature, the opinions of members of a class in methods of teaching elementary chemistry, and the personal judgment of himself, the author, by means of three criteria, selected and evaluated the immediate objectives. Estimations concerning the success of the high-school chemistry instruction were based on tests and observation, and on the study of the subject-matter of high-school chemistry made by Powers. It is concluded from the study that "the present instruction is not successful in terms of the objectives outlined," but ". . . is successful in engendering, for the average student, only the more mechanical abilities represented by motor skills, fixed associations, and to some extent knowledge." Bibliography, forty-eight references.

74. **Engle, J. M.** "A Study of School Success and Failure of High-School Girls," M.A., 1916. 154 p.

This is an intensive study of fifty specific cases of school success and failure among Urbana, Illinois, High School girls. Mentality, character or temperament, environmental conditions influencing the pupil, and the schools' articulation with the pupils' needs were points considered in this study. The conclusions are based upon data secured from (1) examination records, (2) a card index of individual traits of the pupils, (3) mental tests, and (4) a personal call at the home of each individual and a conference with each during a period of from thirty to sixty minutes. The

author concludes that high-school success is favored by good health, good home discipline, average or superior mental ability, an active wholesome social life, absence of retardation, a definite and high vocational aim, good character, existence of good feeling between pupil and teachers, a home tradition which is in sympathy with schools, and high-school or higher education of the parents. Bibliography, twenty-four references.

75. **Erffmeyer, C. E.** "An Investigation of the Junior High-School Movement," M.A., 1920. 118 p.

This study is "an attempt to state in as comprehensive a manner as possible the underlying principles of the junior high school." A discussion of the development of the junior high-school movement, the physical and mental traits of the pupils enrolled, the educational readjustments of the junior high school, its curriculum, and its organization and administration is presented. Four pages of conclusions contain rather brief restatements of the points developed in each of the separate chapters. Bibliography, about three hundred references.

76. **Esworthy, R. W.** "Types of Muscular Coördination in Basket Throwing," M.S., 1930. 66 p.

Using data secured from authorities on the subject of muscular movement, from empirical observations made by himself of various movements performed by certain types of animals, and from the analysis of motion pictures of members of the Illinois basketball squad while they were performing actual shooting movements, the author determines the nature of the muscular coördination used in basket throwing, and presents a study of the conditions that appear to favor the underhand type of shot rather than the extensor type of throw. Bibliography, nine references.

77. **Eveland, H. E.** "An Analysis of Physics Textbooks Used in the High Schools of the United States," M.S., 1925. 72 p.

Eight high-school physics textbooks were selected and analyzed for the purpose of determining the topics with which they deal and the attention devoted to each, the presentation of the various topics, the trend of the change in subject-matter as indicated by a comparison of the content of the old and new editions of texts by the same authors, the extent to which these texts offer study helps to pupils and teachers, and the extent of the vocabulary burden. In the final chapter of this study each text is taken up separately and compared with the average text and ranked in the various features studied. In addition, a list of the features found in all of the textbooks is presented. Bibliography, ten references.

78. **Ewing, D. M.** "A Study of the Financial Policies of the Community High Schools of McHenry County, Illinois," M.S., 1930. 132 p.

Data used in this study were secured from reports of various school officials, and from interviews and correspondence with superintendents of schools, board members, university men, publishers, and securities dealers. The investigation is concerned with the personnel of the boards of education of the McHenry County, Illinois, community high schools and the general nature of each of the high schools, the type of accounting and budgeting used by these boards, the fiscal policies as to current expenditures, the policies of the boards toward incurring floating indebtedness, the policy of the boards in raising capital by bond issues, and the means used by the boards in safeguarding funds and property. Bibliography, forty-four references.

79. **Farley, J. E.** "A Study of the Duties and Responsibilities of a Supervisor of Vocational Agriculture," M.S., 1927. 142 p.

A chapter is devoted to a historical review of supervision in general and of supervision of vocational agriculture in particular. Lists of the duties of a supervisor of vocational agriculture as stated by authors of

textbooks on this subject, by the Federal Board for Vocational Agriculture, and by the supervisors of vocational education of seven different states in their annual reports are given and then summarized and evaluated by the author. A final chapter treats the present status of vocational agriculture in Illinois. Bibliography, sixty references.

80. **Fenton, E. L.** "A Study and Comparison of the Aims, Textbooks, and Methods Used in the Teaching of the First Two Years of Latin in England and the United States," M.A., 1926. 110 p.

For the purpose of determining the relation of secondary-school aims in England and in the United States to curricula and materials, the general nature of the content of the subject-matter studied in these countries during the first two years, and the similarities and dissimilarities in the methods of teaching Latin, twenty textbooks, ten secured from England, and the same number, from the United States, were examined and analyzed. Educational publications of both England and the United States, secured from libraries in this country, were consulted for material on the teaching of Latin. Preliminary to the main discussion a brief comparison is given of certain curricular aspects. Bibliography, 161 references.

81. **Flagg, E. B.** "The Trend of the Content of First-Year Algebra Texts," M.S., 1922. 46 p.

Twelve first-year algebra texts, representing a period of thirty-nine years, were selected and examined in an attempt to obtain information relative to the trend of the content of algebra texts. The preliminary report of the National Committee on Mathematical Requirements was taken as representative of the material that should be taught in the secondary schools of today. Studies were made of the topics and space included in the texts which this committee recommended "to be included" in the work of the first two years of algebra, of topics and space included which the committee recommended "to be omitted," of the per cent of drill exercises, or examples, and also of the per cent of verbal exercises or problems, and the space given to history and biography. The tendency of authors in preparing algebra texts, as stated in the conclusion, is toward following more closely the recommendations of the National Committee on Mathematics Requirements. Bibliography, twenty-one references.

82. **Flaningham, M. L.** "The Spread of School Supervision," M.A., 1914. 64 p.

The author proposed to "trace the spread of school supervision from the pioneer school in America to the very complex systems of administration in our cosmopolitan cities today." The study was based on material taken from state and city reports of the various states in the United States and from collateral articles on education. It sketches the history of the development of the district, township, county, and state units of administration and gives especial emphasis to the theme of why and how the public school superintendent came to be recognized as an essential factor in the successful operation of a school system. Bibliography, over two hundred references.

83. **Foster, I. O.** "The Continuation School," M.S., 1922. 126 p.

This study contains an argument for the continuation school as a part of our educational program and presents a consideration of the factors involved in its organization and administration. In the first chapter the author presents the arguments for the continuation school and attempts to refute the prevalent arguments against it. Following this is a brief survey of the continuation-school movements in Germany, England, France, and America. Chapter III deals with the factors in the organization and administration of a continuation school. Bibliography, references at the close of each chapter and a general bibliography of about 150 references.

84. **Francis, J. H.** "A Study of Certain School Districts with References to Consolidation," M.S., 1930. 118 p.

This thesis is concerned with the attempt to outline a satisfactory school program for seventeen elementary-school districts and one community high-school district, all lying within the boundaries of Ford County, Illinois. Chapter II of the study presents an analysis of the area under consideration; Chapter III, some of the financial phases of the present district; Chapter IV, an attempt to justify the choice of a consolidated school system for this particular area; Chapter V, the administrative aspects of the proposed program, and Chapter VI, a discussion of the financial phase of the program. Bibliography, thirty-seven references.

85. **Galbraith, R. U.** "A Study of the Causes and Remedies of Ninth-Grade English Failures," M.A., 1930. 68 p.

Using such sources of data as school records, opinions of English teachers, a course of study, teaching procedures, books, and periodicals, the author of this study compiled a list of the major causes of failures in ninth-grade English. Brief reviews are given of several remedies being used for ninth-grade English failures, after which an account is given of the remedies used in East Aurora, Illinois. The author suggests that the following remedial points should be considered with reference to ninth-grade English failures: ability grouping, a course of study to fit the needs of the weak group, additional time for this group to complete required work, a sympathetic teacher, and a class in study habits. Bibliography, fifty references.

86. **Garber, L. O.** "The History and Present Status of Military Training in Land-Grant Colleges," M.S., 1926. 160 p.

Data for this study were obtained from government records and reports and from articles written by persons closely connected with the land-grant colleges, either in a military capacity or in an educational capacity. The author discusses the origin and development as well as the present status of collegiate military training in land-grant colleges. Especial attention is given to the First National Defense Act of 1916 and to the Second National Defense Act of 1920. In the final chapter the author presents a statement concerning the significance of the Reserve Officers' Training Corps in national defense. Bibliography, one hundred references.

87. **Gard, W. L.** "A Curriculum in Poultry Husbandry for Secondary Schools," M.S., 1928. 74 p.

The conduct and control objectives of poultry husbandry were determined by analysis and introspection, and the materials of instruction, by appraisal of the activities of those actually engaged in the vocation. Appropriate learning exercises are listed. Data for this study were collected by interview and from textbooks, bulletins, and other illustrative material. Bibliography, twenty references.

88. **Garvey, N. F.** "An Investigation of the Marking Systems Used by the High Schools of the North Central Association," M.S., 1928. 72 p.

Five hundred and twenty-seven replies to a questionnaire and letter which had been sent to 740 North Central high schools form the basis of this study. For purposes of comparing current practices with respect to marking system, the replies were divided into three classes upon a basis of the size of the schools. According to the author, "the outstanding fact revealed by the whole study is the great diversity existing in the practice of giving school marks. . . . In general the variations are more wide-spread in the smaller high schools than in the larger institutions." A copy of the questionnaire, the grading plan for the Decatur High School, Decatur, Illinois, the marking system of the Pontiac High School, Pontiac, Michigan, and the Kansas Uniform Grading Plan are reproduced in the Appendix. Bibliography, thirty-one references.

89. **Glick, H. N.** "Effects of Practice in Intelligence Tests," Ph.D., 1924. 270 p.

Seven groups, totaling 168 subjects secured from the seventh grade to the college graduate school, furnished data for this research, the purpose of which was to investigate the effects of practice in intelligence tests. Though the study is primarily concerned with the effects of practice without coaching, an added feature is presented to show the effects of practice with coaching. Practice effects were studied with respect to accuracy and rate. Each of these phases is considered separately, after which attention is given to reducing the improvement in both rate and accuracy to a single measure. In addition to a chapter that presents and discusses the data by experimental groups, there are chapters that deal with a study of the practice effects by school grades, and with practice effects in the separate subtests of the Alpha examination. The findings of this research reveal that in general "the practice effects are positive for every subject for both rate and accuracy; however, the amount and nature of the improvement are characterized by marked individual difference." Bibliography, sixty-eight references.

90. **Graham, C. A.** "Some Basic Considerations in Formulating a Course of Study for Adult Immigrant Education," M.A., 1926. 103 p.

As a basis for formulating a course of study for immigrant education, the author of this investigation attempts to determine by analysis of statistical data the nature of the foreign-born population of the United States and the educational needs of adult immigrants of the United States. The factors, chosen primarily on the judgment of the investigator as he interpreted the writings of authorities on the subject, include such items as size of foreign-born population, race or people, age, sex, marital status, occupation, naturalization, illiteracy, and previous education. Sources of data were the reports of the Fourteenth Census of the United States, annual reports of the U. S. Bureau of Immigration and of the U. S. Bureau of Naturalization, and studies made by the investigator. The findings and conclusions are considered under the three major divisions of the study. The Appendix presents "A Study of the Student Population of Schools for Adult Education in Akron, Ohio." No bibliography.

91. **Graham, M. E.** "Educational Activities of the Young Women's Christian Association in the Mississippi District," M.A., 1929. 148 p.

This study is an attempt to describe and evaluate some of the educational activities of the Young Women's Christian Association in the Mississippi district during the five-year period from 1924 to 1929. Especial emphasis is given to the Girl Reserve Clubs as an extra-curricular school activity, adult education as participated in by the Young Women's Christian Association, and summer camping as sponsored by this organization. A psychological interpretation is given to various activities entered into by the Mississippi District Association. The author concludes that it is possible for the association to be made an educational organization of great value. Bibliography, seventy-three references.

92. **Green, Belyia.** "A Comparative Study of the Standings of Students and Time Spent in Social Science in High School and University," M.A., 1930. 51 p.

Data consisting largely of high-school and university grades in social science of three hundred University of Illinois freshmen were secured from the files in the office of the Registrar of the University of Illinois and examined. It is shown that "individuals do not necessarily maintain the same relative ranks in social science in the university which they maintained in the same group of subjects in the high school"; "very little correlation seemed to exist between high-school and university grades in social science of individuals used in this study"; "a larger per cent of individuals found in the higher ranks in social science in high school completed the

work at the university than did those found in the lower ranks." Bibliography, six references.

93. **Green, Carl.** "Legal Basis for the Organization of High-School Districts in Illinois," M.A., 1925. 84 p.

The author considers the constitutional provision of a system of free schools, treats of the various statutory enactments providing for the organization of high-school districts, presents the technique of applying the statutes and a number of practical problems growing out of these applications, considers the high-school law enacted by the Forty-Seventh General Assembly in 1911, which was later declared unconstitutional by the Supreme Court, points out the chaotic condition in which the school situation was left by this decision, and discusses the suits which attacked the constitutionality of the Validating Act passed as a result of this chaotic condition. Interpretations placed by the Supreme Court on constitutional and statutory enactments are discussed throughout the study. The final chapter traces the legal basis for the organization of high-school districts and presents a number of recommendations. Bibliography, eighty-one references.

94. **Greene, J. H.** "Constructing a Project Curriculum in Sheep Husbandry," Ph.D., 1920.

95. **Gregg, R. T.** "A Study of the Scholastic Records of Students Dismissed from the College of Education, 1919-1929," M.A., 1929. 35 p.

Data secured from the scholastic records made at the University of Illinois by the 342 students dropped serve as a basis for this study. From these data the author attempts to find answers to twelve specific questions. The author concludes, among other things, that (1) the relationship between the number of students dropped and the number enrolled remained about the same for the period studied; (2) 89.7 per cent of the instances of dismissal were for scholastic reasons; (3) 9.7 per cent of the students dropped were graduated during the period of the study; (4) 90 per cent of the students dropped made higher averages in athletic coaching than in academic subjects; (5) 85 per cent of all the students dropped will never be graduated. No bibliography.

96. **Gross, A. W.** "The Reliability of Teachers' Tests of the Eyesight of School Children," M.A., 1917. 48 p.

The author attempted to determine the advisability of having teachers make preliminary examinations of the eyes of their pupils with a view to discovering the defective ones and referring them to experts or parents for further attention. Data in the form of results of tests of the eyesight of from seven to twelve pupils in each of seventeen classrooms in three schools form the basis of this study. The tests were made by the teachers of the various rooms and also by the author. These results were then checked with each other, and those of one room were checked with the examinations of an oculist. It is concluded that there is a high degree of reliability of teachers' tests of eyesight of school children. The reliability of the teachers' judgment regarding the defects of the pupils' eyes was 92 per cent, while the reliability of the recommendations made was 74.5 per cent. No bibliography.

97. **Groves, N. P.** "The Will-Temperament Test as an Aid in Interpreting School Marks," M.A., 1927. 97 p.

The problem of the study is to answer the question: "What is the value of a will-temperament test when used with an intelligence test for predicting or analyzing the achievement of high-school pupils?" Data were obtained from applications of an intelligence test and the Carnegie revision of the Downey Will-Temperament Test to 119 high-school pupils, and from the teacher ratings of these pupils. It is concluded that there is no "reason for the unalloyed faith in the predictive and analytical value of the will-

temperament test as shown by some of the educators now using it," and that the results of the study do not point to the desirability of the use of the will-temperament test in the educational field. Bibliography, sixty-two references.

98. Hackley, E. P. "A Study in English Readings for the Ninth Grade," M.A., 1920. 76 p.

The problem that confronted the author was how to find books that appeal to children's interests and that at the same time have sufficient literary value and high enough moral standards to promote intellectual and moral growth in the children. A list of books popular with children was taken from a previous study and submitted to forty English specialists with instructions to judge the books as to literary value. These books were then analyzed for nonliterary characteristics. Questionnaires containing questions on these characteristics were submitted to pupils in order to discover their reasons for liking the books. Questionnaires were returned by 293 high-school pupils and fifty-eight college students. The characteristics in books most enjoyed by boys were found to be adventure, mystery, and the boy hero; by girls, adventure, girl heroine, and mystery. Bibliography, twenty references.

99. Hansen, E. A. "The Project Method of Teaching English Composition," M.A., 1922.

100. Harnish, W. E. "An Analysis of Student Difficulties in the Study of High-School Chemistry," M.A., 1928. 39 p.

This analysis is concerned with the results secured by giving Powers' General Chemistry Test (Form A) to 107 students in the high schools of Champaign and Urbana and in the University of Illinois High School, with information secured from students by written questions and personal interviews with respect to length of time spent on preparation, the motive for taking chemistry, their ability to attach value to subject-matter, and personal likes and dislikes, with the vocabularies of twenty students who had studied chemistry and twenty who expected to study chemistry, and with results from testing the ability of twenty students who expected to study chemistry to perform certain types of arithmetical problems. "The data in the study appeared to show that difficulty of materials used for instruction is only one factor to be considered in a reorganization of the course of study for high-school chemistry. . . . The necessity for improved methods of teaching is evident." Bibliography, thirteen references.

101. Harris, William. "A Study of Current Expenses of City School Systems," M.A., 1923. 48 p.

Expenditures of city school systems were analyzed for the purpose of determining the most common cost per pupil of each of the larger items of expense—namely, general control, instructional service, operation of the school plant, maintenance, auxiliary agencies, fixed charges, and interest on indebtedness. Data were obtained from *U. S. Bureau of Education Bulletin*, 1922, No. 17. The cities studied were classified into groups on the basis of size and geographical division for purposes of comparison. Among other things the investigation reveals the need for a uniform system of classifying expenditures and more accuracy in charging costs where they belong. No bibliography.

102. Harwood, H. M. "Factors in College Life," M.A., 1919. 89 p.

Through the coöperation of twenty university women who were the subjects in a number of experiments performed by this investigator, four factors making for success in college life—scholarship, natural ability, participation in student activities, active participation in social life—were measured and compared in three ways, (1) according to records made in the four factors, (2) according to time devoted to each, and (3) according to the students' own rating of each other on each of the four factors. The

results collected from the three problems were compared, and the factors, rated and correlated. Among the correlations found were the following: scholarship and time given to student activities, .38; native ability and scholarship, .67; native ability and prominence in student activities, .54; native ability and social life, —.16; social prominence and scholarship, —.31. Bibliography, forty-two references.

103. **Hathaway, J. O.** "Phases of Educational Interest Since 1900, as Indicated by a Study of a Selected Sample of Educational Periodicals and Addresses and Proceedings of the National Education Association," M.S., 1930. 157 p.

"This study purports to identify and organize topics and phases of educational interest since 1900 as contained in a sample of periodical literature for the period. It attempts to relate them to their particular phases of education, such as philosophy, curriculum, and so forth, and to discover something concerning the consistency of their treatment." Most of the thesis is devoted to the examination of three outstanding periodicals—*School Review*, *Elementary School Journal*, and *Educational Review*. One chapter has to do with the topics discussed in the proceedings of the National Education Association. "The most discussed phase of education in the periodical study was curriculum, while in the proceedings of the National Education Association it was special divisions of education." No bibliography.

104. **Heath, A. W.** "The Relation of the Immediate Objectives in General Science to the Learning Process," M.S., 1930. 95 p.

The experimental work reported in this thesis was carried on for one semester in a class of eighteen students in general science at the Maple Park, Illinois, Community High School. The course in general science for the semester was divided into six units. Immediate objectives were determined for each unit, and learning exercises compatible with the immediate objectives were selected and devised. An achievement test, for purposes of determining the extent to which the immediate objectives had been engendered, was given when the student had completed all of the learning exercises for a particular unit. In the chapter, "Results and Their Interpretation," the individual scores of tests made by each pupil on each unit are compared with the possible score, and the relation of mental and reading ability, to the scores made in achievement tests by the individual student. The author concludes that "the recognition of the relationship between immediate objectives and learning exercises is beneficial and worth while." Bibliography, nineteen references.

105. **Hendrix, S. G.** "Teaching Devices on the High-School Level," M.S., 1930. 144 p.

The author has collected, classified, and evaluated 174 original specific teaching procedures being used by high-school instructors in Illinois. The devices collected were limited to six groups of high-school subjects—mathematics, physical sciences, natural sciences, social sciences, English, and foreign languages—and are classified under six headings—devices to provide perceptual experience, devices for motivation, devices for directing study, devices for drill, devices for review, and remedial devices. Part I of the report includes six chapters, each of which contains a descriptive discussion of a particular type of teaching procedure, a classified list of devices belonging to that type, and an evaluation based on the practical criteria worked out for that particular group. A résumé of the findings of the study is given as one chapter. Part II is composed entirely of the devices themselves, classified according to the six groups of high-school subjects. Bibliography, twenty-four references.

106. **Henry, T. S.** "The Outstanding Characteristics of Children in the Middle Grades," M.A., 1916. 107 p.

After discussing the physiological characteristics, based upon experi-

mental evidence, of children between the ages of eight and twelve, the author gives a treatment of some of the more general conditions and attitudes, and reviews a number of attempts to characterize the period as a whole. Twenty-five statements of conclusions based on the findings of the investigation are presented in the final chapter. A large part of this study is based upon the researches of other investigators. Bibliography, about one hundred references.

107. **Henry, T. S.** "Classroom Problems in the Education of Gifted Children," Ph.D., 1917. 154 p.

This research is primarily devoted to a study of certain problems connected with the education of thirty fifth- and sixth-grade pupils selected upon the basis of the records made by these children in their school work, their health, industry, and application when enrolled in a special room for bright children. These children, though required to follow the regular course of study, use the same textbooks, and meet the same requirements as the other pupils in the corresponding grades, who were considered as the control group, were given the opportunity to work up to their natural pace. Consideration is given to the results obtained by applying a number of educational and mental tests to the pupils of the experimental room. Distinctive features of methods of teaching as adapted to the instruction of gifted children are examined and discussed. The investigator concludes that "children representing the top tenth of the school population of the middle grades, on a proper basis of selection, are able to accomplish two years of the ordinary school work of those grades in one year, under a mediocre teacher and with average conditions of supervision and equipment, without any undue strain or depreciation in the quality of their work." Eighteen recommendations are made with respect to the education of gifted children. Bibliography, sixty-one references.

108. **Herman, A. B.** "A Curriculum of Religious Education for a Student Church," M.A., 1928. 123 p.

The construction of a problem and situation-centered curriculum of religious education is presented in this thesis. The objectives were determined by securing the opinions of writers in the field of religious education and from the writer's own observation, interpretation, and introspection. After attempting to justify the problem and situation-centered curriculum, the author sets up criteria for the selection of problems and situations, which were obtained from men and women students, from church and Y.M.C.A. workers, from the writer's own experience, and from writers who have made a study of student problems. A comprehensive list of ninety-nine of these problems and situations is given. Bibliography, fifty-two references.

109. **Herriott, M. E.** "Attitudes as Factors of Scholastic Success," Ph.D., 1929. 210 p.

The author states as the purpose of this investigation, "to determine: (1) the significance of attitudes as factors of scholastic success in college; (2) their relation to other factors of scholastic success." The groups studied consisted of students at the University of Illinois taking the elementary courses in educational psychology and in the technique of teaching. On the basis of a review of a number of previous investigations, the author selected the following factors as the nucleus of his study: previous training, intelligence, reading ability, study habits, and attitudes. Data consisted of marks in prerequisite course, scores on training test, covering subject-matter of the prerequisite course, scores on intelligence test, scores on reading test, scores from study-habit questionnaire, and attitude ratings. Conclusions are drawn with respect to the major factors of scholastic success—(1) previous preparation, (2) intelligence, (3) study habits, (4) evaluative-non-evaluative attitude, (5) persevering-vacillating attitude, (6) self-confident-dependent attitude—and a comparison of the results of this investigation with the results of a number of investigations reviewed in the initial chapter of the study are summarized. Bibliography, about one hundred references.

110. Hershey, C. B. "The American Lyceum," M.A., 1921. 65 p.

Using source material found principally in the *American Journal of Education*, 1826-1830, the *Annals of Education*, 1830-1839, the *Common School Journal*, 1839-1848, and the *Connecticut Common School Journal*, 1838-1842, the author reviews the educational conditions in the nineteenth century, treats the historical development of the American lyceum and the character of its organization, and points out the educational features of the American lyceum movement. An account of the modern lyceum and chautauqua movement and a list of lyceums are appended to the study. Bibliography, twenty-six references.

111. Hildreth, G. H. "Private Elementary and Secondary Education in Illinois from 1818 to 1860," M.A., 1921. 97 p.

Treatment is given to the early provisions for education in Illinois, to the educational institutions, elementary, secondary, and special, for the period from 1818 to 1860, and to the change in character of these educational institutions as time advanced. The author considers the early conditions that influenced the establishment and character of the educational institutions, and the educational opinions of the period—aims and ideals of early educators. The educational institutions of the time, the different types of schools, textbooks, teachers, examinations and inspection, and co-education are discussed. "Public opinion favored the private rather than the free school with the result that the private school became the dominant type of educational institution throughout the period." A list of ninety-seven schools offering secondary courses during the period with which this study deals is presented in the Appendix. The bibliography lists the newspapers, reports, and laws consulted for material on the problem of the study.

112. Hill, J. E. "The Use of Supervised Farm Practice in Teaching Vocational Agriculture," M.S., 1924. 54 p.

Personal letters were written to pioneers in the field of vocational agricultural education in the United States, early bulletins concerning vocational agricultural education were examined, and encyclopedias and histories of education were studied in an attempt to determine the reasons given by pioneers in vocational agricultural education for the adoption of the home project as a part of a system of agricultural education, and how the home project was used in these early days. The second part of this study gives consideration to the purposes and aims of supervised farm practice as part of a system of vocational agricultural education and to the problem of how the project should be used to accomplish these purposes. Information was obtained from authorities in the field of agricultural education, from a survey made of previous studies of the home project, from reports and bulletins, and from replies to a questionnaire sent to the teachers of Illinois. Ten suggestions which should be embodied in a desirable method of teaching vocational agriculture in Illinois are presented in the general summary of Part II. Bibliography, twenty-eight references.

113. Hindman, D. A. "A High-School Curriculum in Physical Education for Boys," M.A., 1927. 100 p.

The objectives of this curriculum were chosen on the basis of expert opinion in the fields of general education and of physical education. A description is given of the foundational controls of conduct which serve as the objectives, and a list of the more specific functional controls of conduct is developed. Criteria are set up for the selection of 417 activities, which are classified according to the groups of basic physical activities. Bibliography, twenty-four references.

114. Holley, C. E. "A Social Study of an American High School," M.A., 1913. 85 p.

Data for this thesis were secured, by means of a questionnaire, from students enrolled in the Decatur, Illinois, High School at the beginning of

the 1912-13 school year. In addition, school records were examined for information concerning the school standing of these students. The scope of the study is somewhat indicated by the following chapter titles: "Mobility, Progress, Age, and Parentage of the High-School Pupils," "Occupations Chosen by the Pupils," "Pupils' Attitudes Towards an Education," "Mental Ability as Related to Mobility, Progress, and Age," "Occupations and Education of Older Brothers and Sisters," "A Study of Family Factors Which Are Correlated with Elimination." This investigation reveals, among other things, that family life determines in a large measure the chances of a boy or girl to receive a high-school education. Bibliography, five references.

115. **Holley, C. E.** "The Relationship Between Persistence in School and Home Conditions," Ph.D., 1915. 151 p.

The primary purpose of this thesis was to determine the qualitative relationship existing between the schooling of children and their home conditions. The study is secondarily concerned with "a rough determination of the relative importance of the hereditary and the environmental factors involved in these relationships." Data were secured from pupils of a number of Illinois high schools, from the homes of high-school pupils, and from court-house records. Part II of the research deals with the relationships found in Decatur; Part III, with the relationships found in Centralia, Champaign, Gibson City, and Rochelle, Illinois. The principal part of the investigation is concerned with the relationship between persistence in school and home conditions in Urbana, Illinois. Part V is devoted to a consideration of the adopted child. The study as a whole supports the conclusion "that there is a close relation between advantages of a home, its educational, economic, and social status, and the number of years of schooling which its children receive." Bibliography, sixty-nine references.

116. **Hood, F. C.** "A Critical Examination of Some Current Views of the Psychology of Adolescence," M.A., 1926. 99 p.

This investigator has examined the literature on the subject of adolescent psychology in his attempt to answer the following questions concerning the different phases of the problem which are treated in this thesis: "(1) What traits, if any, are exhibited after the dawning of puberty, which were not present before, or, at least, not to an extent considered significant?" (2) "What traits, if any, undergo a sudden change?" (3) "What theories are offered to explain these sudden changes or appearances?" (4) "What data are offered in support of these theories?" (5) "To what views does the acceptance of the theories underlying a special psychology of adolescence commit us?" Views of different writers on each trait studied are examined through a series of comparisons. Concerning the sudden appearance of instincts, the writer says, "Results of mental tests do not furnish conclusive evidence as to whether traits develop suddenly or gradually." Bibliography, forty references.

117. **Hopkins, H. M.** "Extra-Curricular Activities in State Universities," M.S., 1924. 48 p.

In Part I of this study the investigator makes a comparison of printed faculty regulations for the control of activities in thirty-eight state universities having enrollments of over one thousand students. Data were secured from an examination of handbooks or leaflets of regulations, and from an examination of university catalogs. The divisions—social functions, fraternities and sororities, and athletic activities—under which most of the rules were grouped, and a division under which students' activities in general were grouped, receive treatment. The second part of the study is concerned with the relation of extra-curricular activities to grades. The extra-curricular activities and grades for the class of 1923 of the University of Illinois for the winter of 1921-1922 furnished data for this problem. On the basis of the findings from both investigations the author concludes

"that school work and extra-curricular activities . . . may be carried without influencing seriously scholastic standing." Bibliography, twenty-seven references.

118. **Hopkins, M. M.** "A Statistical Descriptive Study of Twenty Secondary Schools of Champaign County, Illinois, and of Related Factors," M.A., 1929. 79 p.

Before giving attention to the factors that have to do directly with the twenty secondary schools of Champaign County, the study presents a discussion of certain factors outside of the schools, as for example the geographical features and the population of the county, the business and industrial activities and enterprises, institutions other than the secondary schools that are doing supplementary phases of educational work, and the transportation facilities. Consideration is then given to the following factors more closely related to the secondary schools of Champaign County: the distribution and location of the high schools, and the comparative area of the districts; the enrollment and graduation of the pupils; facts regarding the teaching staff; the library and equipment; the curricular aspects. Included among the sources consulted for data were records from the State Department of Public Instruction, records from the office of the county superintendent of schools, records from the office of the county clerk, records from individual schools, census reports, and county maps and directories. A number of suggestions are made in the final chapter with respect to increasing the efficiency of the schools studied. Bibliography, ten references.

119. **Hoskinson, B. Q.** "School Progress of Gifted Children," M.A., 1916. 81 p.

A group of adults, ranging from freshmen in the university to holders of the Ph.D. degree, who had "skipped" grades during their school career, and a group of children, enrolled in the public schools of Urbana and Champaign, who had "skipped" grades were interviewed for information concerning characteristics of grandparents, training of parents, characteristics of parents, health of parents, occupation of father, duties of the mother, age of parents, the number of brothers and sisters, pre-scholastic life, and scholastic life. Descriptions are presented of ten special cases wherein "skipping" was reported disadvantageous and twenty-one cases wherein it was reported advantageous. The author of this thesis claims that "the results of the investigation justify the final conclusion that until better provisions have been made for the school progress of gifted children, they should be permitted to skip any grade of the elementary school except the seventh and eighth grades, and that these two grades should be skipped only rarely and in cases of exceptional ability." Bibliography, twenty-seven references.

120. **Hostettler, O. C.** "The Rural High Schools of Illinois," M.S., 1924.

Both the material side, which includes buildings, equipment, district organization, and finance, and the instructional side, which includes the administrator, the teacher, the enrollment, and the courses of study, are included in this statistical analysis of material relating to the status of the rural high schools of Illinois. Records and reports from the office of the State Superintendent of Public Instruction and returns to a questionnaire sent to the principals of five hundred high schools constitute the chief sources of data. Seven hundred and twenty-five schools are included in the study. Although revealing certain features of the rural high schools which are unsatisfactory—e.g., inadequate school plants, meager equipment, low salaries, and so forth, the study indicates a tendency toward a marked improvement. Bibliography, twenty-two references.

121. **Hostettler, B. H.** "A Study of the Subject Combinations Taught in the Four-Year High Schools of Illinois," M.S., 1930. 149 p.

The *Illinois School Directory*, published by the State Department of

Education, and reports of previous studies of subject combinations were the principal sources consulted for data used in this study. The author reviews the reports of previous studies of subject combinations, tabulates all the subject combinations taught by teachers and administrators in four-year high schools as listed in the *Illinois School Directory* for the years 1924-25, 1928-29, and 1929-30, and presents his interpretation of these findings. Conclusion's presented are attempts to answer six queries with respect to the problem under study. Owing to the variety of different subject combinations that the teacher is likely to encounter, the author recommends that "all prospective teachers prepare in three subjects, that is, in a major and two minor fields."

122. **Howk, C. D.** "Providing for Individual Differences of High-School Pupils by a Plan of Sectioning Classes on the Basis of Ability," M.A., 1926.

123. **Hull, M. R.** "The Development of the Home-Management Course at the College Level in the United States," M.S., 1927. 60 p.

Textbooks, university catalogs, and the opinions of specialists in the field of home economics form the basis of this study. The development of the home-management course as indicated by university catalogs comprises one chapter of the study, as also does the development of the home-management course as indicated by textbooks. The earliest and latest of such courses recorded in each of the state university catalogs is compared. The changes that have taken place in the home-management course since its recognition as a distinct subject of instruction in 1913 are discussed under objectives, materials of instruction, and methods of instruction. Bibliography, one hundred references.

124. **Huntington, H. A.** "The Industrial Vocational Education Needs of Peoria," M.S., 1927. 130 p.

Manufacturing and mechanical industries, retail trade, and the transportation industry are included in this survey of the needs for industrial vocational training in Peoria, of the existing training agencies, and of the instructional needs of the principal vocations followed in Peoria for which training should be given. Public and private schools having both day and evening classes in industrial establishments were studied as training agencies. Instructional needs in the various vocations reported were obtained through interviews with employers and employees, through similar studies made in other large cities throughout the country, and through government publications containing material related to the problem of training tradesmen. Recommendations based upon the findings of the survey are presented and briefly discussed. Bibliography, forty-six references.

125. **Hutchens, B. A.** "Psychological Traits as Revealed by Literature and Their Relationship to Pupil Interests," M.S., 1927. 124 p.

The outside reading interests of adolescent boys and girls were studied by comparing traits of adolescents with typical traits of characters in books which students read. More specifically, the purpose of the study was to answer the following questions: (1) "What do psychologists consider as outstanding traits of adolescents?" (2) "What traits of personality as treated in novels, romances, and biographies appeal to boys and girls of high-school age?" (3) "Is there a similarity between the traits of characters in novels and the traits of adolescents?" Book choices of students whose reading interests had been studied over a period of six years were compared with those of similar studies, and the names of the authors most frequently chosen were determined. Traits of outstanding characters were recorded from the book by the author of the highest frequency, and general traits of adolescents, compared with the summary of the traits of these outstanding characters. The one value of this study, according to the author, is "that of suggesting to teachers and librarians many possibilities for presenting good books to boys and girls." Bibliography, 151 references.

126. Hutchison, Sue. "A Study in the Determination of Historical References in English Poetry," M.A., 1919. 46 p.

Using the English poetry required for entrance by the University of Illinois as the basis for this investigation, the attempt is made to describe and illustrate a technique for the determination of the specific historical references contained in this literature and to present the partial content obtained by the use of this technique. Historical references were collected and classified according to their particular nature. These specific references were then scored, each reference of a kind in a given poem being scored only once. The difficulties encountered in the selection and scoring of the specific references and the principles formulated to care for these difficulties are considered in detail. The poetry selected for this study is arranged by authors and presented in the thesis. No bibliography.

127. Ingler, F. M. "The Parent-Teacher Association," M.A., 1925. 105 p.

This thesis is concerned with the problem, "What help or contribution can the Parent-Teacher Association render to the school, through the school organization either directly or indirectly?" The discussion presents both the reasons for the existence of the Parent-Teacher Association and the reasons offered by schoolmen who are opposed to such an organization. A large number of things with which a Parent-Teacher Association might be concerned are treated under the following classifications: (1) stimulation of social and professional understanding, (2) methods of coöperation, (3) evaluation of the influence of the home, (4) inculcation of thrift, (5) promoting a community center, (6) making health a community project. Twenty-six typical programs are presented as portraying the Parent-Teacher Association in practice. Bibliography, forty-eight references.

128. Johnson, L. R. "A Comparison of the Trend of the Objectives and the Curriculum of Secondary Education," M.S., 1926. 114 p.

This investigation is an attempt to show the trend of the objectives of secondary education during the period from 1820 to 1920 by reproducing some of the more pertinent published statements of the objectives of secondary education found among the writings of educational authorities during the period, and an attempt to show the trend of the secondary-school curriculum during this period of secondary-school development by means of the lists of various subjects offered. An attempt is also made to determine the extent of correlation between the trend of objectives and of the curriculum during this period. The aims and curricula of the Latin grammar schools prior to the inception of the first high school is considered preliminary to the main study. A condensed summary of the comparison of the trend of objectives and of the trend of the curriculum is presented in the final chapter. Bibliography, 152 references.

128a. Johnston, J. H. "An Investigation into the Elements Which Constitute Good Teaching in the Elementary School," Ph.D., 1916. 134 p.

The purpose of this study was to formulate a reliable method for estimating the worth of the teaching process in the elementary school. As an introduction to the study the author discusses teacher-rating forms both from the point of view of the superintendent and of the teacher; gives a critical summary of methods already in use or recommended for testing the abilities of teachers; and lists thirty-two scales or tests in elementary-school subjects, stating the method employed and the results obtained. A rating form containing ten major items was formulated, and by means of this form ten persons rated each of the teachers of thirteen elementary schools in two cities. The total number of teachers rated was eighty-six, and the pupils in their classes numbered 2,895. The medians of the ten different ratings for each teacher were then found and correlated with the achievement of the pupils in writing and arithmetic. Achievement was computed by administering the Thorndike writing scale and the Courtis arithmetic tests at the beginning of the study and again seven

weeks later, counting this as equivalent to one-fourth of a year. It was concluded (1) that a high negative correlation exists between the improvement of the pupils as measured by the Courtis tests and the ratings of the corresponding teachers, and (2) that a positive correlation (.32) exists between the ratings of the superintendents and the ratings made on the form, and a higher correlation (.46) exists between the ratings of the various persons using the form. No bibliography.

129. **Johnston, M. H.** "Sex Differences in Tests of Motor Skill," M.S., 1929. 46 p.

In an attempt to determine sex differences in tests of motor ability, ten selected motor tests were given to two groups of university students, equated as nearly as possible in training, one a group of men enrolled in athletic coaching at the University of Illinois and the other a group of women, the majority of whom were physical education majors at the University of Illinois. The results of this investigation are compared with those reported in a number of recent experimental studies bearing on the subject of differences in motor ability, which the writer reviews in the initial chapter of the study. The results of this experiment reveal that the men excelled the women in the five reaction time tests, the dexterity test, and both coördination tests; the women were superior to the men in serial reaction and maze learning. No bibliography.

130. **Jones, F. D.** "Some Psychological Factors Concerned in Spelling," M.A., 1921. 131 p.

Seventh-grade pupils enrolled in the Urbana, Illinois, schools during the year 1920-21 furnished the data for this spelling investigation. The study is concerned with "(1) the relative importance of the ear and eye, and aid through vocalization, (2) the correlation or lack of correlation between spelling ability and general intelligence, (3) the equality or inequality of words which by experimentation have been thought to be of approximately equal difficulty, (4) the relativity of the number of syllables and letters of a word to the mistakes in spelling it, (5) the types of errors which children most frequently make, and (6) the most frequent cause of poor spelling." It was found from the administration of a number of tests to these seventh-grade pupils that there was little correlation between spelling ability and general intelligence. Both visual and auditory presentation were found to be of great importance in spelling. Bibliography, sixty-two references.

131. **Jones, L. S.** "Junior High-School Administration with Especial Reference to the Reorganization of Content in Mathematical Courses," M.A., 1917. 71 p.

In this study the author has investigated the elementary- and high-school tendencies in the United States and has defined the work that may be included in the first six grades, which make up the elementary division, and in the seventh, eighth, and ninth grades, which are included in the junior high school. The attempt has been made to determine whether the junior high-school movement aims at a particular purpose or a combination of purposes—all having a common end. School surveys, the curricula of well-organized school systems, and data gathered by other investigators interested in the solution of problems pertaining to the junior high school were carefully examined. The thesis is concerned only with the theories and practices most commonly found with the junior high-school idea. An application of these to a given situation is made. Bibliography.

132. **Kinison, C. R.** "The Qualifications and Duties of the Supervisor of Practical Arts," M.S., 1927. 95 p.

Although the emphasis is placed upon industrial arts, three other phases of practical arts—agricultural arts, commercial arts, and household arts—are considered in this investigation. Treatment is given to the

part played by the national government in the supervision of the practical arts, to an analysis and evaluation of the Smith-Hughes Law, to state supervision of practical arts with special reference to Illinois, to local supervision, and to a proposed technique of supervision in industrial arts. Qualifications of the supervisor are classified in terms of specific abilities as follows: knowledge of general pedagogical principles, ability to evaluate the teaching objectives in industrial arts, ability to select and organize subject-matter, ability to assist in the improvement of the teaching act, ability to test and measure the results of teaching, ability to rate teachers, and ability to carry on visitation and conferences. Bulletins, proceedings, texts, journals, surveys, reports, and courses of study were examined for material relating to the study. Bibliography, thirty-eight references.

133. **Klehm, W. A.** "A Cost Accounting System for High-School Departments of Industrial Arts," M.A., 1929. 91 p.

Material for this study was secured from personal visits to seven large Illinois schools selected at random, from a survey of the literature published by school officials, and from an unpublished thesis. Chapter II of the investigation is devoted to the need for cost accounting in the industrial arts; Chapter III, to general accounting methods; Chapter IV, to applications of accounting to industrial arts, and Chapter V, to methods of allocating expenditures to proper activities. Three outstanding qualities suggested as desirable in every accounting system are adequacy, simplicity, and standardization. Bibliography, 102 references.

134. **Knudsen, C. W.** "A Diagnosis of the Study Habits of High-School Students," M.S., 1923. 83 p.

This study is an attempt to evaluate as instruments for diagnosing the study of habits of high-school students four of a group of study tests prepared by the Bureau of Educational Research, University of Illinois, the purpose of which was to measure in some fashion the ability of students to engage in certain types of learning. Results secured by the administration of the study tests to the students of the Eureka, Illinois, Township High School, were compared with the results obtained by the administration of the Van Wagenen Reading Scales, as well as with the ratings of students' abilities by teachers. Responses to the exercises of the study tests were examined to discover the faults in the study habits of the high-school students and to discover faults in the tests themselves. Criticism of the study tests and the directions for scoring them are presented, and suggestions for their improvement are pointed out. It is concluded that "the study tests used in this investigation serve to diagnose the study habits of high-school students better than is possible by a method that utilizes teachers' judgment." Bibliography, seven references.

135. **Knudsen, C. W.** "The Relation Between Learning Exercises and Immediate Objectives," Ph.D., 1927. 167 p.

The basic problem of this study was to determine how the nature of learning exercises influences the achievement of pupils. It is based upon the educational literature touching this problem, learning exercises used by teachers in actual schoolroom practice, and the author's experience teaching a high-school class in physics during the time of the study. A plan is suggested for selecting learning exercises with reference to the types of learning activities that are essential to the acquisition of particular types of abilities. The author concludes that the incompatibility between learning exercises and objectives is more frequent in teaching than is commonly recognized, and that his evidence supports the validity of the statement that learning exercises are a dominant factor in determining the achievement of students. Bibliography, about seventy references.

136. **Koons, G. J.** "History of Science Teaching in Illinois," M.A., 1922. 96 p.

Books, pamphlets, newspapers, and periodicals were examined for data concerning the history of science teaching in Illinois. The study

concerns itself with the early development, science instruction in the elementary schools, science teaching in the public secondary schools prior to, and after, 1892, science work in the normal schools, colleges, and universities, and organizations promoting science teaching. Presented in the Appendices are examples of some early school advertisements, courses of study in the Chicago high schools, and a review of legislation affecting science instruction. According to the author, "the most important fact in the development of the science instruction in the high school has been the introduction of the laboratory method of instruction." Bibliography, thirty-six references.

137. **Kronenberg, H. H.** "An Analysis of the Content of United States History Texts in the Light of Aims," M.A., 1929. 58 p.

Before analyzing the content of six United States history texts, selected on the basis of a number of criteria, the major problems of concern were determined by bringing together the findings of twelve studies and selecting on the basis of frequency the most common problems suggested by these studies. The aims of United States history were then determined by an examination of the general literature, of prefaces to history books, and of state courses of study. The content of a history text was classified into its different aspects—political, military, social, and economic—and the number of pages devoted to each of the specific topics regarded as of major importance was listed. In the final chapter the author presents his interpretation of the findings, together with a number of conclusions pertinent to the relationship existing between the aims of the United States history as expressed by textbook writers or others and the content of the material presented in these textbooks. It is suggested that since the texts studied do not treat all of the pressing social, industrial, and political problems of the day, and since the organization of content offered is not always conducive to reflection and critical thought, the textbooks are not likely to contribute in the most desirable way to a complete realization of the aims. Bibliography, fifty-five references.

138. **Krumsiek, W. W.** "The Effect of Supervision on Teachers' Objectives," M.A., 1928. 154 p.

Three major questions dealt with in this study are: (1) "Do teachers have definite objectives?" (2) "Do they keep them in mind when making assignments?" (3) "Can supervision help to bring about a closer relationship between the assignments and objectives?" Each of fifteen teachers of the Edwardsville, Illinois, High School were asked to submit in writing the objectives of her particular course. Written daily assignments were also requested for the purpose of ascertaining their relationship with the objectives. Following a survey made of the objectives handed in by the teachers, each teacher was visited a number of times over a period of a few months. The visit was followed by a conference, which in each case was a careful and critical discussion of methods used to realize the various objectives set up by the teacher. On the basis of these conferences, and readings in professional magazines, the teachers were requested to revise the objectives previously submitted. Improvements noted in the major objectives are presented in the final chapter. Bibliography, 124 references.

139. **Kukets, W. R.** "A Study of the Results of Some Non-Intellectual Tests," M.A., 1928. 104 p.

Three non-intellectual tests—Tapping Test, Dynamometer Test, After Image Test—and an intelligence test—Terman Group Test of Mental Ability—were given to forty-nine boys and fifty-one girls, all of whom were enrolled in the University of Illinois High School, for the purpose of determining whether scores obtained from the administration of these non-intellectual tests are measures of intelligence or of personality, and for the purpose of discovering a combination which when correlated with the average school marks will give the highest coefficient of correlation. The results of the three non-intellectual tests of this experiment reveal a relationship between a pupil's achievement and the tapping tests. A number

of other conclusions drawn from the findings of the study are presented. Bibliography, twelve references.

140. **Kulcinski, Louis.** "What Is the Comparative Effectiveness of the Formal, Informal, and Combination Methods When Instructing University Freshmen Fundamental Muscular Skills?" M.S., 1929. 74 p.

Students comprising the four classes in the Department of Physical Education of the University of Illinois selected for this experiment were grouped as nearly as possible on the basis of numbers, previous training, and ability. In the formal group all activity was carried on as a class unit on the command or at the suggestion of the instructor; in the informal group all activity was carried on through individual help and suggestions; in the combined group all activity was taken up in a day-by-day alternated sequence of the formal and informal group procedure; in the control group all activity was carried on by the students without any instruction. Consideration is given to the degree of mastery of the course content on the part of the student and to the relative importance of grouping exercises according to similarity of movement. The informal method ranked highest in the comparative effectiveness of the three methods, with the combined method and the formal method following in order. Bibliography, eleven references.

141. **Yumano, Kichijiro.** "The Japanese High School," M.A., 1917. 91 p.

Material for this description of the Japanese high school was secured partly from the writings of American educators, but largely from Japanese authorities in the field of education or through personal contact with the Japanese schools. Problems of Japanese education with respect to general administration and organization, finance, supervision, the teaching force, and the curriculum are carefully considered. From the descriptions and discussions included in the study, the author presents a number of recommendations, among which are: (1) greater flexibility in the curriculum, (2) a larger educational budget, and (3) democracy in school organization. Bibliography, twenty-eight references.

142. **Lawson, E. L.** "The Expectancy of the American School Superintendent," M.A., 1914. 52 p.

Five hundred and ninety returns to a questionnaire sent to superintendents of schools of all cities of ten thousand and over, and to a large number of cities having populations of between two thousand and ten thousand inhabitants furnished most of the data for this investigation. The attempt was made to study "the actual conditions of youth, training, experience, specialties, salary, and handicaps of the American city school superintendent." The typical life history of a school superintendent of this early period is revealed by the findings presented in the study. No bibliography.

143. **Lee, M. L.** "Teacher Training in High Schools," M.A., 1915. 64 p.

The purpose of this study was to determine the part of the high school in the preparation of teachers for the public schools through special normal-training courses established by state aid. Data were secured from annual and biennial reports of the state superintendents of public instruction, from school laws of the various states, and from the returns to a questionnaire sent to all of the chief state school officers of the United States. A brief account of the rural school as it is related to the problem is presented. Consideration is given to the purpose of teacher training in high schools, to the legal provisions for training courses in high schools, and to an evaluation of the findings. Suggestions concerning the advantages and disadvantages of such teacher training are offered. Bibliography.

144. **Lewis, C. D.** "A Comparison of the Performances of Pupils from One-Room Rural Schools and Graded Schools When Working Together in the High School," M.A., 1917. 32 p.

This investigation, carried on in the high schools of Kentucky, gives consideration to the character of communities represented by the schools from which the data are drawn, the area served by these schools, the social and economic status of the parents of the students attending these schools, the time spent by the students in the elementary schools, and the strength and weakness of one-room pupils. Pupils from the one-room schools and from the graded schools were ranked and compared with respect to health and vigor, mental ability, general scholarship, athletic ability, obedience to school authority, application to study, purpose in life, and honesty and truthfulness. A comparison is also presented of the grades made by pupils from the two types of schools studied. The investigation is summarized under nine brief statements. Concerning scholarship, the findings reveal that in nine subjects having the largest enrollment, one-room pupils held the highest average grade in seven and the highest median grade in six. The one-room pupils were rated above the graded-school pupils in obedience, application, purpose in life, and honesty, and equal to the graded-school pupils in mental ability. No bibliography.

145. **Littler, S. H.** "The Mobility of the Teaching Population," M.A., 1912. 41 p.

This study is based on 6,779 replies to a questionnaire sent to teachers throughout the country. These teachers were asked to give information concerning (1) the number of months for which their contract was drawn, (2) salary per month for the year, (3) number of years taught in the country, in a village or town, and in a city, and (4) number of years studied in high school, in normal school or teacher-training classes, and in college or university. Before treating the problem of this study, the author reviews an earlier study by L. D. Coffman, "The Social Composition of the Teaching Population," from which much of the data for this thesis was secured. According to the combined findings of these investigations, 64 per cent of the women and 84 per cent of the men began teaching in the country. The median training of those who began teaching in towns was five years as compared with four for those who began teaching in the country. In the rural schools, the report shows, the women were better trained, while in the city schools the men were the better trained. No bibliography.

146. **Lundin, R. S.** "A Curriculum in Horticulture for Secondary Schools," M.S., 1927. 87 p.

Two hundred and twenty-six abilities needed for efficient participation in adult horticultural activities, as determined by an analysis and appraisal of the activities in which farmers engage, are classified under seven control objectives, which are in turn subdivided into smaller subunits. Five principles for the selection of materials of instruction and five for the organization of these materials are set up and considered. The 263 learning exercises are organized under the seven groups of objectives. Bibliography, seventeen references.

147. **Luther, R. M.** "A Comparison of the Athletic Alertness Test with Other Measures of Achievement," M.A., 1929. 52 p.

Data were secured from 218 seventh- and eighth-grade pupils, and correlations are reported for the following paired scores: mental alertness and motor alertness, mental alertness and perceptual alertness, motor alertness and perceptual alertness, mental alertness and school marks, mental alertness and mental ratings, mental alertness and athletic alertness, motor

alertness and athletic alertness, perceptual alertness and athletic alertness, motor alertness and school marks, motor alertness and mental ratings, perceptual alertness and school marks, and perceptual alertness and mental ratings. The investigator reports "a deep-running incompatibility between accepted forms of the intelligence tests and the commoner forms of tests of motor control." Bibliography, ten references.

148. **McAfoos, R. E.** "Historical Development of the Methods of Teaching Biology in the Secondary Schools of the United States," M.A., 1928. 101 p.

Considered in this study are the major changes that have taken place in the methods of teaching biology since it was first included in the secondary-school curriculum, the educational theories upon which these changes have been based, the nature of present day methods, and a comparison of present day methods with earlier methods. Histories of education, histories of biological development, works on biology teaching, biology-text prefaces, committee reports, and periodicals were the sources consulted. According to the author, methods of teaching biology have undergone three important changes based upon three different philosophies of education. Bibliography, fifty-two references.

149. **McAnulty, Leona.** "The Laboratory Plan of Individual Instruction in English Instruction," M.A., 1929. 108 p.

The primary purpose of this investigation was to determine to what degree the laboratory plan of individual instruction is effective in the teaching of English grammar and composition. The thesis is also concerned with the comparative effectiveness of the laboratory plan of individual instruction in large classes with that in the small, or average class. Before reporting and commenting upon the results of the experiments performed during the project, the author gives consideration to the psychology of individual differences, to a history of modern methods of instruction, and to a number of plans of individual instruction in English composition. Conclusions favorable to the use of the laboratory plan of individual instruction in English composition are given in a number of concise statements. Bibliography, thirty-eight references.

150. **McClellan, G. B.** "The Entrance Requirements of the State Universities of the United States," M.S., 1925. 78 p.

A study is made of the entrance requirements of all the state universities in this country for the purpose of ascertaining present day tendencies. The problems considered in the thesis are: the history of university entrance requirements, specific entrance requirements of state universities, optional requirements of college entrance, specific entrance requirements in the various sections of the United States, specific entrance requirements within the various colleges of the state universities, and the relation of the present day entrance conditions to high-school subjects. The author advocates a national system of accreditation and a closer coöperation between the various units of the educational system. Bibliography, forty-eight references.

151. **McComis, S. J.** "Educational History of Illinois up to 1855 with Emphasis on the Movement for Public Schools," M.A., 1916. 106 p.

This is an historical account of education in Illinois from the time of the earlier attempts at formal instruction to the establishment of the public free schools in 1855. The attempt is made to reveal the influence operating to promote the cause of public education and the development of the free school idea. Illustrations are presented of the early methods of instruction, curricula, construction and equipment of school buildings, and the qualification and character of teachers. Chapter II deals with the pioneer school; Chapters III and IV present a discussion of the legislative development, including the Ordinance of 1787, the Duncan Law of 1825 providing for the support of schools by public taxation, the Davidson Bill

of 1841 making provisions for organizing and maintaining public schools, and the Free School Law of 1855. Histories of education, educational periodicals of this early period, Illinois school reports, reports of the United States Commissioner of Education, and school laws were among the sources consulted for data. Bibliography, forty-six references.

152. **McGinnis, C. A.** "A Survey of the City Schools of Metropolis, Illinois," M.A., 1927. 66 p.

This survey is an attempt to determine the investment for elementary schools of Metropolis as compared with their needs and as compared with the investment being made by similar communities, the present status of the school buildings as compared with modern standards, the efficiency of the instructional staff, the value of the course of study, and the capacities and achievements of the school children. The present status of the elementary-school system is described, and recommendations are made for future improvement. Tests, the Strayer-Engelhardt Score Card for Elementary Buildings, questionnaires, interviews, city-school records, and census reports were used in obtaining the data necessary for the study. Recommendations are made concerning buildings and equipment, playgrounds and playground equipment, the educational investment for the elementary schools, the instructional staff, and the course of study. No bibliography.

153. **McHarry, L. J.** "An Experiment in Individual Instruction in Tenth-Grade Composition," M.A., 1924. 55 p.

After giving an account of the development of individual instruction, the author presents a report of an experiment in individual instruction conducted with a group of fourteen students enrolled in a section of tenth-grade composition in the University of Illinois High School. A course of study for one semester was arranged in terms of problems with provision for tests upon each and a plan for a suitable distribution of themes. According to the plan of instruction, each student was allowed to progress as rapidly as his ability and effort would permit. Results of the experiment are briefly summarized. The author is of the opinion that "careful organization of the entire unit of work is essential in individual instruction." Bibliography.

154. **McKinney, H. T.** "A Study of Mobility as a Cause of Retardation of Pupils," M.A., 1915. 50 p.

After surveying briefly the literature on retardation, this investigator attempts to determine the effect of mobility upon the child's school career. The following questions are among those considered in the study: (1) "Is there a direct correlation existing between retardation or acceleration of children in school and the mobility of the general population?" (2) "Does this correlation vary in amount and character according to the time of school year in which the change is made?" (3) "Does it vary with the grade or with the age of children?" Data were secured from 871 returns to a questionnaire sent to one thousand high-school and advanced elementary-school pupils in six Illinois towns. The findings reveal "that the parents who move during their child's school career, in 23.5 per cent of the cases, handicap their child by moving . . . . There is a higher correlation between moves during school and failure than between vacation moves and failure." Bibliography, twenty-five references.

155. **McKinney, H. T.** "Promotion of Pupils: A Problem in Educational Administration," Ph.D., 1921. 206 p.

The purpose of this study was to determine the validity of a proposal that ability to do the work of the next higher grade is probably a better criterion by which to judge a pupil's fitness for promotion than his passing record in the grade from which promotion takes place. In one city school system an experiment was conducted to determine how well a pupil of a certain grade can do the work of an advanced grade, and in two other

systems experiments were carried out to determine the feasibility and desirability of giving all pupils a chance to show their ability to do the work of the next higher grade as a criterion for advancement. The data supports the belief that much of the retardation of pupils in the public schools results from the customary plan of advancing pupils at the end of a term on the work of the grade just gone over. The author recommends the plan of promotion tried out in the experiments. Bibliography, seventy references.

156. **Madden, G. E.** "An Analysis of Pupils' Mistakes in Geometry," M.A., 1922. 70 p.

Four hundred and eighty-eight semester examination papers in response to eleven sets of questions and 117 quiz papers based on three sets of questions were carefully examined for the purpose of analyzing the difficulties of high-school pupils in plane geometry. The errors contained in these papers were analyzed and those of like nature listed together under a descriptive name. The errors were then classified according to the mental processes involved. After reviewing briefly similar studies by Odell, Thorndike, Ruger, Judd, and others, the investigator presents an analysis of pupils' errors as discovered in the examination papers mentioned above. The final chapter is devoted to a treatment of the causes of mistakes, and to a number of remedial suggestions. Illustrations of the various examinations given as parts of the study are shown in the Appendix. Bibliography, eleven references.

157. **Main, Josiah.** "The Organization of Agriculture and the Sciences in the High School," M.A., 1910. 78 p.

This thesis begins with a discussion of the problem of adjusting agricultural courses in the high school to other subjects taught on this level, especially the sciences. Attention is then given to the position of the various sciences in the high-school course. A graphic method of treatment with respect to the organization of agriculture and of the sciences is presented and discussed. According to this treatment all of the subjects which may constitute a formal course in the combined science-agriculture group are arranged in an elongated rectangle from top to bottom according to their significance to agriculture. Separate chapters of the study are devoted to the position of the sciences and agriculture in this graphic scheme. A high-school course in agriculture and in the sciences based upon the discussion of the graphic representation of the formal work in the sciences and agriculture is presented and briefly considered. Attention is called to the significance of agriculture in the schools as affecting the question of the relation of the school to society. Bibliography, eighty-seven references.

158. **Manuel, H. T.** "A Study of Talent in Drawing," Ph.D., 1917. 178 p.

The problem of this study was twofold: (1) to determine the essential psychological characteristics of persons talented in drawing, and (2) to determine how the test method may be used in diagnosis of talent in drawing. Nineteen individuals were selected for their recognized talent in drawing; five of these were college students, eight were secondary-school students, and six were elementary-school pupils. To these persons forty-five psychological tests were applied. Information, particularly of a biographical sort, was obtained from other sources. Seventeen conclusions are given, the last of which states that "the only factor which has appeared from our tests to be constant in persons who are talented in drawing, to mark them off from other individuals, is a certain superior ability mentally to note a visual form, and, by certain lines and areas, to reproduce it or significant features of it." Bibliography, thirty-six annotated references.

159. **Marston, L. R.** "A Comparative Study of the Two Distinguishable Sets of Abilities Involved in Training in High-School English," M.A., 1917. 88 p.

For the purpose of comparing two distinguishable sets of abilities

involved in high-school English training—one, designated "Ability A," which has to do with the mechanical form and more purely intellectual content of language; the other, designated "Ability B," which is concerned with the emotional content and the whole realm of literary aesthetics—a series of five tests designed to measure those elements into which it is thought "Ability B" could be resolved were given to a large number of pupils in sixteen English classes in the Urbana High School, Urbana, Illinois. From the pupil's rating in each of the tests a final rating was determined by computing the average. The pupil's rating in "Ability A" was determined by the teacher who was asked to classify her students as poor, medium, or excellent, according to their ability along the lines involved in "A". The findings of the study reveal that "the respective degrees to which these two 'sets' of abilities are found in the same individual vary, but rarely is the variation extreme . . . School age and training have apparently little influence upon the development of 'Ability B.'" Bibliography, nineteen references.

160. **Maynard, M. M.** "Types of Rhetorical Error in the Written Themes of College Freshmen," M.A., 1920. 60 p.

Short weekly themes of one page each and book reports of five or six pages submitted by English classes in Monmouth College were checked for rhetorical errors. A basis for the classification of errors was reached by an examination of fifteen textbooks in rhetoric and composition. Errors in the use of words were classified upon the bases of improprieties and barbarisms; errors in the use of sentences, upon the bases of unity, coherence, and emphasis; errors in paragraphs, upon the bases of unity, coherence, and emphasis; and errors in the whole composition, upon the bases of unity, coherence, and emphasis. The findings reveal that "errors in the use of words by college freshmen . . . are largely errors of impropriety . . . The most common error in the construction of sentences and of paragraphs is that in unity." Bibliography, sixteen references.

161. **Melrose, M. H.** "A Study of the Socialization of Arithmetic," M.A., 1916. 90 p.

Before reporting on an investigation of problem material contained in some of the leading textbooks used since 1880, the purpose of which was to discover the extent to which problem material has been socialized since 1880, to ascertain what social activities are receiving most emphasis, and in what grade this emphasis is the greatest, the investigator presents a résumé of early texts and methods of teaching arithmetic in the United States, an account of the socialization movement in arithmetic, and illustrations of socialized class work in arithmetic. Twenty textbooks were carefully analyzed in the study. Problems suggested in the texts were divided into two groups, those having social significance, and those thought of as non-social. Problems of the social group were classified under such types as home problems, economic problems, scientific applications, and general social applications. The non-social problems were classified under twenty-five types. The investigator claims that one desirable feature in the more recent books is the arrangement of problems in such manner as to better convey the social point of view. Bibliography, ninety-seven references.

162. **Metter, H. L.** "The Selection of Textbooks," M.S., 1925. 61 p.

Data for this study, the purpose of which was to determine current methods, as well as ideal methods, of selecting elementary and high-school textbooks were secured from books and articles bearing on the subject, from an examination of elementary- and secondary-school textbooks, and from replies to a questionnaire sent to three hundred cities in the United States having a population of ten thousand or more. Separate consideration is given to four major requirements that textbooks should meet in order to be most serviceable. These are: provision for the realization of the aims or objectives of education, adaptation to the pupil's use, adaptation to the

teacher's use, and compliance with suitable and scientific standards. For the cities forming the basis of this study twenty-seven findings are presented. The author concludes that "textbooks should be selected by the teachers who will use them, working in coöperation with the supervisors of instruction." Bibliography, fifty-one references.

163. **Miller, W. S.** "Mental Tests and the Performance of High-School Students as Conditioned by Age, Sex, and Other Factors," Ph.D., 1917. 146 p.

Seven tests, each of which was given to two hundred or more students, furnished the data for this study. The different tests used were: (1) Cancellation, (2) Dutch Homestead, (3) Marble Statue, (4) Analogies, (5) Cause and Effect, (6) Directions, and (7) Word-building. Numbers 4 and 5 above were individual tests, and the others, group tests. The scores of these tests were correlated with scores on general intelligence. Among other things the author concluded that (1) the norms established from the seven tests indicated the performance in the tests was conditioned by age, sex, year in school, vocation of father, size of family, and the preference for high-school subjects; (2) there was no regular increase in efficiency with increase of age; (3) in any year in high school the younger students are more efficient. The author predicts that in time the mental examination of high-school pupils will be as common as the physical examination. Bibliography, ten references.

164. **Milligan, D. A.** "A Study of the Efficiency of the Utilization of Time in Physical Education," M.S., 1925. 71 p.

Material for this study was secured from personal visits to physical-education classes in twenty Illinois high schools. Part I of the study is a treatment of each individual school studied, and Part II, a treatment of the three groups studied, the "downstate," suburban, and Chicago schools, with respect to per cent of total period actually worked, per cent of total period exclusive of dressing time actually worked, per cent of total period consumed calling roll, per cent of total period lost in starting late, and per cent of total period consumed explaining and disciplining. An interpretation of the results is given, and remedies are suggested for increasing the efficiency. A general summary is presented of conditions as they exist in physical education, the reasons for these conditions, and methods of improvement. Bibliography, eleven references.

165. **Mizuno, Tsunekichi.** "The Effect of Kindergarten Training upon the Physical, Mental and Moral Traits of Japanese School Children," M.A., 1916. 50 p.

The study reported in this thesis is concerned with the status of the kindergarten in different countries, but more particularly in Japan. In dealing with the kindergarten in Japan, consideration is given to its development and status, the object of the first kindergarten in Tokyo, the training of kindergarteners, the law concerning the kindergarten, the old curriculum, and principles in kindergarten training. Chapter IV deals with the real problem of the study—the effect of kindergarten training upon the physical, mental, and moral traits of Japanese children. Data were secured from twenty-four elementary schools in nineteen cities of Japan. Teachers were asked to grade pupils on each of eleven qualities. Findings of the study show that when kindergarten children are compared with non-kindergarten children with respect to certain qualities, they are superior in scholarship, understanding, and memory, inferior in capacity for sustained effort and diligence, inferior in many moral habits, and not superior in physical capacity and bodily health. Bibliography, fourteen references.

166. **Montgomery, Mildred.** "Testing Supplementary Reading in High School," M.A., 1930. 95 p.

Tests dealing with supplementary reading books found to be most frequently read in English classes of four Illinois high schools were con-

structed and administered in English classes of the University of Illinois High School. The six fiction tests and the three biography tests constructed in this study are included, as well as an account of their construction and a critical examination of the results from their administration. The author is of the opinion that objective tests, supplemented by conferences and discussions, are of considerable value for checking up on outside reading. Bibliography, eighteen references.

167. **Moody, M. R.** "Some Aspects of the Project Method with the Emphasis upon the Project in General Science," M.S., 1927. 104 p.

The opinions of leading educators with respect to the project method of teaching, in general, and to the project as used in science teaching, in particular, gathered from published statements found in science books and in educational periodicals and bulletins were evaluated in the light of a limited number of results obtained by experimentation. In addition to presenting a brief history of the use of the project in school work, the author considers the curricula as developed according to the project method, discusses the technique of teaching used in the project method of teaching, discusses types of projects and gives examples of projects in science, calls attention to merits claimed for and objections made against the project method, and, finally, presents a number of criteria for judging the project. "It appears reasonable from data investigated in the preparation of this thesis that both the project and the assignment methods have merits, and that the success of either is largely due to the manner in which it is presented." Bibliography, forty-five references.

168. **Moore, B. C.** "A General Analysis and Synthesis of the Principles and Problems of School Management," M.A., 1927. 80 p.

There are three parts to this thesis. The first is a statement and discussion of the theory of school management; the second, an analysis and interpretation of special problems of school management; the third, an analysis of the school plant and its equipment. The attempt is made to show "by analogy with other life processes that school management, as a process, is governed by, and that each and all of its many problems and principles are controlled by, a common fundamental law." Bibliography, twenty references.

169. **Moore, C. B.** "The Development of Illinois High Schools Since 1860," M.S., 1925. 89 p.

Special emphasis is placed in this thesis upon "the transitional stage from the elementary school to the high school, upon the legal status of the high school, upon certain curricular aspects, and upon the financial considerations." Among the many sources of material consulted for the study are included the following: biennial reports of the State Superintendent of Public Instruction, volumes of the Educational Finance Inquiry, reports of the High School Visitor, reports of the High School Conferences, bulletins of the U. S. Bureau of Education, courses of study from representative high schools, and histories of education. Using Champaign County as an illustration, the author recommends the abandonment of the small high school and the absorption by the larger high schools of the pupils in attendance at the smaller schools as a means of reducing the per capita costs for the county and as a means of providing equal distribution of benefits. Bibliography, forty-eight references.

170. **Morris, A. E.** "Rural Supervision," M.A., 1914. 148 p.

This study is based on 325 returns of a comprehensive questionnaire sent to 993 superintendents of forty-six states. A brief account of the history of school supervision in Massachusetts, Indiana, Illinois, and Texas is presented as the initial chapter of the thesis. After revealing the need of this study, the investigator presents and interprets the data secured from the questionnaire returns. Chapters are devoted to the composition of the supervisory force, qualifications of the rural superintendents, past and present salaries of these superintendents, work performed by rural superin-

tendents, handicaps experienced by rural superintendents, the typical rural superintendent of the United States, correlations and comparisons, school statistics of Illinois, and views of state superintendents concerning rural supervision. Higher qualifications of teachers, higher salaries of teachers, better school buildings and equipment, closer cooperation between parents and teachers, closer supervision, better qualified superintendents, and the election of the superintendent by the board rather than by popular vote are suggestions offered for the improvement of rural supervision. Bibliography, seventeen references.

171. **Mullins, E. R.** "Training High-School Pupils to Study Textbooks in History and in Physics," M.A., 1925. 73 p.

Using as guides the subject-matter with which pupils have to work and the objectives sought, the attempt is made to select the types of learning exercises involved in the study of history textbooks and of physics textbooks and to offer suggestions as to how pupils may be trained to perform them. Books and periodicals were examined for data. Types of subject-matter found in textbooks are classified under statements of fact, descriptions, records of thinking, products of thinking, and expressions of thinking. The first part of the thesis comprises a discussion of study in general and of textbook study in particular, presents rules for selecting learning exercises, and analyzes the general technique of the teacher in training pupils to perform the learning exercises efficiently. The remainder of the thesis is devoted to the training of high-school pupils to study textbooks in history and in physics. A summary is given after each of the two main divisions. Bibliography, 107 references.

172. **Murphy, F. W.** "The Junior High School with Special Reference to Mississippi," M.S., 1930. 120 p.

In an attempt to establish a basis for improving the present conditions and for facilitating the future development of the junior high schools in Mississippi, the author of this thesis, by means of a criterion established from the analysis of data relative to present practices in the junior high schools in general, evaluates the present status of the junior high schools in Mississippi and formulates plans to overcome the deficiencies discovered. Educational publications were consulted for data relative to present practices in junior high schools. Data with respect to the present status of the junior high schools in Mississippi were obtained from a questionnaire answered by junior high-school principals and city superintendents, from personal visits by the author to the larger schools, and from documents obtained from the State Department of Education. The Appendix contains an account of the public junior college in Mississippi. According to the author, "... reorganization on the junior high-school basis in Mississippi appears to be in name rather than in practice." Bibliography, fifty-nine references.

173. **Nauman, R. H.** "The Use of Projects in Teaching High-School Chemistry," M.A., 1925. 97 p.

After defining the project method, the author of this study considers how the definition might be used, undertakes a study of the experiences that teachers have had with the method, and estimates the values that the method might offer to chemistry instruction. The essentials of a good project, the selection of a project by pupils, the development of a project, and difficulties found in attempting to use the project method are considered. Samples of projects worked out and a list of projects selected by the use of criteria and classified under four types of projects are given. Steps through which the pupil using the project method should proceed are suggested in the conclusions. Bibliography, thirty-nine references.

174. **Nichols, A. S.** "Types of Architectural Courses for Senior High-School Students," M.A., 1927. 121 p.

Architectural courses are outlined which seem most nearly to meet the requirements as revealed in a study (1) of the architectural needs of

senior high-school students, determined by a study of the objectives of secondary education as set forth by educators and educational committees, (2) of the opinions of heads of university architectural departments, practice architects, and teachers of high-school architecture, architectural drawing, and industrial arts with respect to recommended courses, and (3) of North Central Association high schools with respect to the present status of architectural instruction in the senior high schools. Suggestions are made concerning details of presentation. A brief sketch of the development of architecture as a profession is given in the first chapter. Bibliography, sixty-one references.

175. **Nolan, A. W.** "The Case Method in the Study of Teaching with Special Reference to Vocational Agriculture. A Contribution to Methods in Teacher Training," Ph.D., 1924. 377 p.

The problem of this study was "to define the case method as a technique in teacher training, to secure the case records, to set up control or guide charts, to try out the case method with a group of prospective teachers in training, to draw conclusions as to the success of the case method, based upon the experimentations, and to interpret and make critical analytical evaluations of the cases collected, in the light of accepted educational principles and methods." The study was based upon eighteen cases of class exercises, nine cases of farm practice supervision, and twenty cases of extension activities, together with an estimate of the results of teaching in two different sections of a special methods course in the teaching of agriculture at the University of Illinois, one of which was given the case method in the study of teaching and the other, the regular lecture, textbook, and discussion methods in the teaching of agriculture. Control charts for each of the three different types of cases are set up by the author. These were used as materials of instruction in the class which was taught by the case method. An interpretation and evaluation of each case record is given. The author concludes that the case method is a technique which may be used successfully in studying the teaching of agriculture. The Appendix contains observer's notes and stenographic reports of each of the cases. Bibliography, thirty-one references.

176. **Nye, L. M.** "A Study of Current Plans for Curriculum Revision and Reconstruction in Junior and Senior High Schools," M.A., 1929. 209 p.

For the purpose of establishing a clear understanding of the chronological growth of the curriculum, there is presented an account of the origin and development of our present day high school from the time of the Latin grammar school. The attempt is then made to discover to what extent objectives are to be considered in plans for curriculum construction, and the relative importance of the consideration of objectives in the actual revision and reconstruction process. Various plans and personnel arrangements suggested for curriculum construction are taken up in detail. Consideration is given to the organization of various groups for curriculum work, and the attempt is made to discover the reason for, and the favorable and unfavorable aspects of, each plan resulting from participation of any one or more groups. Treatment is given to teacher-participation in curriculum-making. High-school manuals, articles from periodicals, reports of various educational organizations, books, and authorities on the curriculum were consulted for data. First-hand material was obtained by a questionnaire sent to 160 superintendents of the country. Bibliography, extensive.

177. **O'Brien, J. A.** "Some Factors in the Development of Speed in Silent Reading," Ph.D., 1921. 273 p.

A résumé of previous studies in silent reading is given. The study seeks to determine "the various factors conditioning the development of speed in silent reading, to ascertain the comparative influence of the different factors in accelerating the reading rate, and to combine the im-

portant factors into a formulation of successful types of training in silent reading." The author first devises the following three types of training: (1) training in rapid silent reading, (2) training to decrease vocalization, and (3) training in perception. These were applied to forty grades in twenty Illinois schools. Each of the forty classes was divided into two groups, one of which was used as the control group and the other, as the experimental group. The period of training comprised thirty-nine consecutive school days. It is concluded that the rate in silent reading was accelerated to a marked degree by training in rapid silent reading; that a slight improvement in the accuracy of comprehension resulted with the increases in speed; and that eye-movements were improved by a lessening of the number of fixations, rather than by a shortening of the average duration of the fixations. Bibliography, seventy-two references.

178. **Odell, C. W.** "The Use of Intelligence Tests as a Basis of School Organization and Instruction," Ph.D., 1922. 204 p.

The purpose of this study was to answer the question: "What is the effect upon the efficiency of elementary schools of promoting and classifying pupils chiefly upon their mental age and intelligent quotients as determined by group intelligence tests rather than according to the traditional method?" The experiment was carried on in eight elementary schools of Chicago, each of which had sixteen or more teachers. Four of these schools were used as the experimental group, and the other four, as the control group. Using the scores of intelligence and achievement tests, which were administered at four different times during the period of the experiment as the basis of the study, the author arrives at conclusions concerning the following problems: (1) the efficiency of the two groups of schools as measured by the rates of progress of the pupils, (2) the efficiency of the two groups of schools as measured by the achievement of the pupils, (3) the rates of progress made by the pupils who remained in school throughout the course of the experiment, (4) a special study of the brighter and duller pupils. The author concludes that the additional expenses involved by the use of intelligence tests as the chief basis of classifying pupils is sufficiently justified by the increase in the output of the school. Bibliography, extensive.

179. **Orata, P. T.** "An Experimental Investigation of the Relation of Feeling and Learning," M.S., 1925. 81 p.

The preliminary step in this study was the examination of speculative theories underlying the relation of feeling and learning. After finding these theories to be inadequate to account for the facts of everyday experience, the investigator examines the evidence from a number of investigations to find the relation of feeling and learning, and gives some discussion and criticism on the results and techniques employed, as well as the fundamental assumptions upon which they are based. Two types of experiments are then performed, one in an attempt to determine experimentally the relation of the feeling of pleasantness and unpleasantness to learning, and the other, to determine the relation between affective state or emotion, and learning. The tendency as shown by the results is that "we learn better what is unpleasant to us." Bibliography, sixty references.

180. **Osborn, L. G.** "The Present Status of High-School Curricula in the North Central States," M.A., 1918. 114 p.

This study presents an account of the subjects and courses that were being taught in the secondary schools of the north-central states at the time of the preparation of the manuscript, 1915. Fifty-six courses of study bearing the date of 1915 or later, thirty-seven courses of study dating from 1906-1916, and twenty-five dating from 1900-1906, issued by superintendents of various schools, were studied and analyzed for the purpose of determining (1) the curricula offered, (2) the subjects and courses offered, (3) the constant and near-constant courses, (4) the time and

place distribution of the courses, and (5) the required and elective courses. The attempt is further made to define and present such tendencies that may have appeared toward changes from earlier practices, or toward the adoption of new practices. A summary is given after each of the major divisions of the study, the titles of which are "Curricula and Their Differentiations," "Analysis of Curriculum with Respect to Course of Study," "Requirements in Secondary Education," "The Organization and Analysis of the Curriculums of the Junior-Senior High Schools." Presented in the Appendix are illustrations of curriculum types.

181. **Paine, O. A.** "The Economic Status of Teachers in Illinois," M.A., 1915.

182. **Paredes, L. B.** "A Study of Administrative Problems and Practices in the Philippine Public High Schools," M.S., 1930. 89 p.

This descriptive study is the result of the author's attempt to present a critical appraisal of the public high school as a social institution, to make certain suggestions with regard to the general organization of secondary education in the Philippine Islands, and to present a detailed and technical discussion of the curriculum, instruction, and administration of the secondary school. Original sources published in the Philippines and in America were consulted for data used in this investigation. An historical account of the organization and administration of the Philippine system is followed by a consideration of the problems of finance, supervision, teaching personnel, and curriculum. A summary is presented following each of the major problems of consideration, and the study as a whole is summarized in the final chapter. On the basis of the factual conditions outlined in the thesis, the author has offered a number of conclusions and recommendations for improvement with regard to raising the standard of classroom instruction and increasing appropriations for educational purposes. Bibliography, fifteen references.

183. **Payne, W. L.** "The Educational Guidance of Public Secondary-School Students in the Election of Curricula and Subjects within a Curriculum," M.S., 1926. 71 p.

More than two hundred references dealing with educational guidance were consulted for the purpose of determining the need for educational guidance in the secondary school, the means to employ in judging a student's probable success, the criteria to be used in evaluating guidance policies, and the administrative measures to be utilized in employing a guidance program in high schools of various sizes. A summary is given under each of these topics. The author is of the opinion that provisions should be made in each school to acquaint students with educational opportunities, with the opportunities and requirements of the vocations, with the subjects they are to take in high school, and with the probable success they may expect in the various subjects. Bibliography, ninety-five references.

184. **Peterson, L. V.** "Teachers' Pensions," M.A., 1928. 65 p.

Following a brief survey of the present day position of teachers' pensions, the author of this thesis traces the origin, rise, and development of the earliest private pension systems and then concerns himself with the beginnings and later developments of the legislatively permitted and enacted pension organizations. Important sources of data are articles in educational periodicals, provisions of these early systems, present laws on teachers' pensions, and reports of various commissions on teachers' pensions. While the author is of the opinion that the pension movement has had its most rapid growth, it is claimed that pension systems have not so far advanced that there will be no more changes. State pension systems are compared in a comprehensive table. Bibliography, sixty-one references, eight of which are bibliographies on teachers' pensions.

185. Phillips, J. B. "An Investigation of the Use of the Final Written Examination in Secondary Education," M.A., 1916. 61 p.

An investigation is reported of the variations of practice in the use of final written examinations in the secondary schools of America and Europe, together with an analysis of actual examination questions. The attempt is made to determine the importance of the final examination and to formulate and test a scale for the supervision of written examinations. A brief historical survey of the evolution of the examination as an educational device is presented at the outset of the thesis. Upon the data secured from 209 replies to a questionnaire sent to about four hundred superintendents and principals, the author bases his discussion of the status of the written examination in the secondary schools of the United States. The views of educational authorities concerning the advantages and disadvantages of the written examination are offered. The author is of the opinion that there should be more supervision of examination questions, especially in the case of inexperienced teachers. Bibliography, twenty references.

186. Porter, H. V. A. "A Study of the Advantages and Disadvantages of the Lengthened Recitation-Study Period Based on Experiments in Its Use," M.A., 1925. 119 p.

Preliminary to the study the thesis presents a discussion of the views and experiments of a number of those who have worked in the field of this problem, or in closely related fields, and points out several ways of introducing the lengthened recitation-study period in a high school of three hundred, or fewer, students. The workability of the lengthened recitation-study plan was determined after it had been observed through three stages. Data were obtained from controlled classes, and results were measured by the use of standardized tests and scales. Definite study faults are listed and classified, and the attempt is made to show to what extent these study faults are corrected in the use of the lengthened period. Important factors to be considered before introducing the lengthened recitation-study plan are listed and discussed in the final chapter. Bibliography, eighty-nine references.

187. Price, H. D. "An Experimental Study of Foot-Skills in Soccer Football," M.A., 1931. 51 p.

Six subjects were used in this experiment, the purpose of which was to make a study of the nature of learning foot-skills in soccer. The scope of the study includes attempts to answer such questions as, "What is the nature of foot-skills in soccer?" "How are the foot-skills in soccer learned?" "What technique seems to be most proficient in kicking a stationary or a moving ball for accuracy?" Three types of experimental procedure are used—the stationary ball test, the moving ball test, and the hidden ball test. Eleven specific conclusions are drawn from the findings, among which is the statement that "the foot-skills in soccer are learned in the same manner as any other skill is learned." No bibliography.

188. Pulliam, Roscoe. "Pupil Participation in Control in Secondary Schools," M.A., 1927. 194 p.

This comprehensive study has to do with the history of the development of pupil participation in control in the secondary schools of the United States, the present status of this participation activity, and the educational outcomes of pupil participation and its difficulties and dangers. Reports of experts, and periodicals, books, proceedings of educational societies, and addresses of various sorts have been examined for data. Among the chapter titles which indicate something of the scope of the study are: "Discipline in the Schools of the Past," "The New Methods of School Discipline," "Some Early Experiments with Pupil Participation in Control," "The Ultimate and Immediate Objectives of Pupil Participation in Control," and "Types of Organization for Pupil Participation

in Control." Concise answers to three major questions presented at the outset are contained in the summary and conclusions. Bibliography, 208 references.

189. **Ragland, L. W.** "A Study of the Community High School with Especial Reference to the Community High Schools of Illinois," M.A., 1919. 50 p.

There are three major divisions of this study. Part I presents a plan of procedure to be used by boards of education for surveying an existing school system for the purpose of bringing it to its highest point of efficiency. Part II shows the effectiveness of the outline when applied to an existing township high school. The final division emphasizes the value of the outline and gives additional suggestions for its use. Data for the study were secured from a number of sources, including the *Thirteenth Yearbook of the National Society for the Study of Education*, Part II; community high schools in Illinois; and authorities in the field of school surveys. The following features of a community high school are considered: (1) physical structure of the school, (2) organization, administration, and supervision, (3) the curriculum, (4) standard requirements, (5) application of standard tests, (6) the pupil, (7) school organization, (8) school sanitation and medical inspection, and (9) miscellaneous. No bibliography.

190. **Rapp, O. L. V.** "School Publicity," M.S., 1927. 130 p.

Successful financial campaigns for special school support, studies made by individuals on various aspects of school publicity, ideas and opinions of textbook writers on the subject of school publicity, and other present practices with respect to school publicity are considered in an effort to outline procedures and plans necessary to secure public support and backing and in an attempt to show the need for school publicity for public information and for increased school support. Recommended in the study are plans and campaign programs for special school support, and various ways in which the school can be given proper publicity. Bibliography, forty-five references.

191. **Rayner, W. H.** "The Relative Importance of Topics in Surveying Instruction," M.S., 1920. 50 p.

According to a number of principles six textbooks in surveying were carefully analyzed for the purpose of determining the separate topics treated by them. The topics listed from this analysis were classified into those relating to the transit and tape and those relating to the level, plane-table, miscellaneous instruments, and computations. A large number of teachers and practicing engineers and surveyors were then asked to compare, on the basis of their experience only, the topics pertaining to surveying work as regards their real importance in courses in surveying. The returns were assembled into twelve bundles according to the different branches of surveying in which the judges were employed. The facts and data exhibited and analyzed in the study have their chief significance in the tables showing the rank of topics for various branches of surveying, in the arrangement of topics in each of the two main groups according to the judgments of the practicing engineers and teachers, and in the table showing the probable errors of the final rankings of topics. No bibliography.

192. **Reagan, G. W.** "A Study of Uhl's Proposed Plan for Selecting Reading Material," M.A., 1924. 64 p.

The worth of an adaptation of Uhl's proposed scale for rating reading selections is determined by (1) considering the criticisms of eighteen judges who were asked to rate a number of selections, extensively used in the sixth grade, with the aid of the scale, (2) by observing the degree of uniformity in the rating, and (3) by determining how the ratings compared with judgments upon the selections obtained from a fairly large number of teachers and pupils by means of a questionnaire. According

to the investigation the adapted form of Uhl's scale is not highly reliable, but can be improved by correcting certain pronounced weaknesses. No bibliography.

193. **Reagan, G. W.** "Effects of Practice on Individual Difference," Ph.D., 1928. 272 p.

The author gives an excellent review of previous studies related to the problem of this thesis. Three separate experiments provided the data upon which the conclusions of this study are based. In the first experiment twenty college students were given word-checking, arranging-sentence, and multiplication tests three times a week for nearly three months. Twenty-four summer-school students whose ages ranged from twenty to sixty years were the subjects of the second experiment. Six forms of word-checking tests were given in order and repeated in order, one being given every day of the week, except Sunday, for a period of seven weeks. A sixth-grade class of twenty-nine pupils were the subjects of the third experiment. The pupils were trained in cancellation, classification, and arithmetic each school day for nearly six months, daily scores being kept. From these three experiments the author concludes that when ability and improvement were measured in units of work done in a given time those students who had the initially highest ability made greater gross gains than the initially lowest, but the latter made greater relative gains than did the former. When ability and improvement were measured in units of time required to do a given amount of work, the initially lowest subjects always gained more, both absolutely and relatively, than the initially fastest subjects. Bibliography, thirty-eight references.

194. **Reinhardt, Emma.** "Services That the School Renders to Persons Past Compulsory School Age," M.A., 1925. 129 p.

Using data obtained from published articles upon various phases of the topic, from printed material obtained directly from some of the leading schools conducting extension activities, and from statements obtained directly from superintendents of schools or from directors of extension activities, the investigator attempts to determine the services that are now rendered by schools to persons past the compulsory school age, the manner in which the extension activities are administered, the regulations, state and local, relative to the wider use of the school plant, why the school is fitted to render services to persons past the compulsory school age, and, finally, how the efficiency of the school in rendering these services can be increased. Representative examples of recreational and social opportunities offered in a number of rural and city schools are presented. Bibliography, 109 references.

195. **Reinhardt, Emma.** "A Study of Standards for Immediate or Classroom Objectives, Materials of Instruction, and Pupil Activities for Two Years of French, with Especial Reference to the Social and the Leisure Time Objectives of the North Central Association," Ph.D., 1927. 224 p.

Published literature in the fields of curriculum-making and the teaching of modern foreign language, textbooks in first- and second-year French, courses of study from twenty-five cities of one hundred thousand or over, and returned questionnaires from French teachers and supervisors in 110 North Central high schools furnished the data for this study. Objectives for two years of French are set up, in the light of which materials of instruction are selected. Finally, the pupil activities are selected which make use of the materials of instruction in the realization of the objectives set up. Bibliography, about two hundred annotated and one hundred unannotated references.

196. **Remley, C. G.** "The Application of Objective Techniques to Supervision in Elementary Schools," M.A., 1928. 57 p.

The elementary-school subjects, spelling and reading, are analyzed in an attempt to determine the feasibility of extending an objective scheme

of supervision into these fields. The plan used as the basis of this study is that for the supervision of arithmetic proposed by F. B. Knight in the June, 1927, number of the *Journal of Educational Research* and founded upon eight supervisory and teaching devices. The experience gained from applying objective techniques to the supervision of spelling and reading forms the basis of tentative judgments with respect to the application of similar schemes to other elementary-school subjects. The conclusions state that "the plan is generally applicable to those situations in which definite objectives have been established, and in which measures have been provided by means of which a continuous inventory of pupil achievement, expressed objectively, can be obtained." Bibliography, eighteen references.

197. **Richie, W. W.** "The Content of a Course on 'How to Study,'" M.S., 1929. 103 p.

Five courses on "How to Study" are summarized, and five texts that have been written for a course in "How to Study" are analyzed by the author in his attempt to outline a brief course of study to be used in junior high school. The course of study here outlined is intended to cover a period of eighteen weeks and to be used as a guide for teachers only. Such activities as keeping in good physical condition, note-taking, planning one's work, reading, using the library, and making an investigation and writing a report are considered in the outline. Objectives, references for the teacher, references for the pupil, and questions and exercises for discussion and outside assignment are presented with each section. Bibliography, twenty references.

198. **Robertson, Carita.** "A Curriculum in Physical Education for High-School Girls," M.A., 1929. 71 p.

After giving a brief account of the present status of physical education in secondary schools and discussing the needs of physical education, the author of this thesis presents a résumé of the laws of learning and provides a discussion of their application to physical education. The different types of learning exercises are then described, and those best adapted to learning through physical activities are selected and offered. The study acquaints the reader with the relationship of a curriculum to the objectives of education and offers a statement of the control objectives of physical education as determined by the author through a review of expert opinion of the best authorities both in general education and physical education and through personal experience and reasoning. Chapter IV presents a statement of the abilities that should be engendered in high-school girls for which physical education should be responsible. The final chapter deals with the selection of the activities and presents the curriculum itself in which the activities and learning exercises are arranged for the separate grades of the high school. Bibliography, forty-seven references.

199. **Robertson, E. L.** "The Use of the Assembly as a Means of Promoting Better English," M.A., 1925. 120 p.

By a careful summary of the literature on the subject, the author points out recent tendencies in assembly practice and calls attention to a number of recommendations made by earlier studies in the field. The effort is then made to show in what ways the assembly is of importance to the English department. Statements of teachers who have had experience with the type of assembly work suggested by this study are offered to show the value of the assembly as a means of promoting better English. Ways are suggested for overcoming a number of difficulties that have been previously met. The chief contribution of this study lies in the classified concrete program material which is presented under the following types: programs growing directly from work of English departments, programs arranged for special occasions, and illustrative and supplementary programs. Bibliography, twenty-six references.

200. **Robinson, A. B.** "Curriculum in Foods for University of Illinois High School," M.A., 1924. 73 p.

After considering the nature and frequency of adult food activities as suggested in interviews with the mothers of twenty-five University of Illinois High School girls, attention is given concerning what should be included in a curriculum in foods at the University of Illinois High School. One hundred and fifty-four abilities necessary for the proper performance of the adult activities are classified under seven main activities pertaining to food in the home—namely, planning, buying, care after buying, preparation, setting table, serving, clearing table and washing dishes, preservation, and miscellaneous. The curriculum suggested by the study is organized under seven units, and listed under each of the units are the abilities that are to be the outcomes and the learning exercises by which these abilities are to be acquired. No bibliography.

201. **Rogers, H. P.** "The Grades and Athletic Abilities of University Freshmen in the Coaching Course," M.A., 1926. 56 p.

Ten athletic events, chosen because of the variety of muscle combinations that were brought into use, assuming that such combinations would give an indication as to the general athletic ability of an individual, were given as tests to a large number of freshmen in the athletic-coaching classes at the University of Illinois in an attempt to determine the relation between the average semester grades and the general athletic ability of a freshman taking the coaching course. The average semester grades and the psychological test scores of these subjects were obtained. Coefficients of correlation were computed between the general athletic scores and each of the ten events, between the average semester grades and general athletic scores, sky-jump, and wall-climb, and between the psychological test scores and average semester grades, general athletic scores, and sky-jump. The findings reveal no relationship between a student's general athletic ability and his average semester grades in the coaching course. Bibliography, four references.

202. **Rucker, H. J.** "The Development of Agriculture in the High School," M.S., 1928. 91 p.

The development of agriculture as a school subject and its later development as a vocational subject in the high school are two phases of the problem considered in this thesis. Material for the study was secured from such annual and special reports as those of the U. S. Department of Agriculture, the U. S. Bureau of Education, the Federal Board for Vocational Education, and so forth; from data concerning special agricultural schools, and special agricultural courses; from reports of studies made in the field; from agricultural and educational books; from articles pertinent to the problem, and from other miscellaneous sources. The author in his summary suggests "the need of a better organized curriculum, more efficient administration, better qualified instructors and supervisors, and a greater concentration on essentials . . ." Bibliography, seventy-two references.

203. **Rugg, H. O.** "Descriptive Geometry and Mental Discipline," Ph.D., 1915. 135 p.

This study presents the results of an experimental investigation with regard to the effect of a semester's study of descriptive geometry upon special abilities in the mental manipulation of spatial elements (a) of a strictly geometrical character, (b) of a quasi-geometrical character, and (c) of a non-geometrical character. A controlled experiment was set up with a group of 326 freshmen engineering students as the experimental group and 87 juniors and seniors enrolled in the School of Education as the control group. The experimental group was divided into seven sections, each section being made up of students pursuing like courses of study.

Six tests of ability in the mental manipulation of spatial elements of which three involved non-geometrical elements, one involved quasi-geometrical elements, and two involved strictly geometrical elements, were given to all the subjects in February and again in June—after the experimental group had taken the course in descriptive geometry. The author concludes that the study of descriptive geometry tends substantially to increase the student's ability in solving problems in mental manipulation of spatial elements of a geometrical character, of a slightly geometrical character, and of a completely non-geometrical character, but the gain is progressively greater as one proceeds from the non-geometrical tests to the strictly geometrical tests. Bibliography, thirty-three references.

204. **Sanford, C. W.** "A Study of Child-Accounting Records," M.S., 1930. 139 p.

Included in this study is "first, a consideration of the functions and purposes of child-accounting records; second, a consideration of the results of an analytical study of the child-accounting practices in some sixty representative schools in the state of Illinois; third, a consideration of the criteria which were used in the selection of the records and the items contained thereon for use in each of the different schools; and fourth, a consideration of the records for use in each of three different sized schools." Data were secured chiefly from a questionnaire and from an examination of the literature on the problem, or related problems. The introductory chapter includes an historical survey of child-accounting records and a brief résumé of other similar studies in the field. The findings from the analytical study of the child-accounting practices in the schools studied reveal that few of these schools possess an adequate set of child-accounting records. Bibliography, seventy-six references.

205. **Schutte, T. H.** "The Relation Between Physiological, Psychological, and School Ages of Children: A Résumé of Recent Literature," M.A., 1916. 79 p.

This study presents a general survey of what has been done by others toward determining whether or not there is a definite relation between physiological, psychological, and school ages of children. Chapter II deals with the method of determining school age; Chapter III, with the method of determining mental age; and Chapter IV, with the method of determining physiological age. Under this latter treatment is discussed the development of the wrist bone, eruption of the teeth, general bodily development, and pubertal phenomena. In Chapter V the author considers the interrelation of the various ages—school age and chronological age, school age and mental age, mental age and chronological age, physiological age and chronological age, physiological age and school age, and physiological age and mental age. The study is based on the bibliography of fifty-nine references.

206. **Scranton, L. L.** "An Analysis of Marketing Instruction in Vocational Agriculture," M.S., 1926. 84 p.

After emphasizing the importance of, and the need for, more comprehensive and practical instruction in the principles of economics and marketing for farmers and others interested primarily in agriculture, the author of this study indicates the nature and scope of such instruction and presents suggestions relative to the selection of subject-matter and to classroom procedure. Attention is given to the importance of marketing instruction, factors influencing marketing instruction, and the objectives of marketing instruction. Material for the study was obtained from published literature in the fields of curriculum-making and of agricultural economics, from teachers in the field, and from the writer's own observation and experience. A preliminary statement is given concerning the growth and development of vocational education since the time of the passage of the Smith-Hughes Act. Bibliography, eighteen references.

207. **Seehausen, Paul.** "An Analytical Study of Six European History Textbooks," M.A., 1924. 131 p.

Six medieval and modern history textbooks in general use in the high schools of the central west were analyzed for the primary purpose of determining "what subject-matter is most common to all or to the majority of the textbooks, in what particulars individual textbooks differ from the mean, and what particular subject-matter is given most prominence in the six selections." The mechanics of the texts were also examined "to discover whether the aims set forth by the authors have been given consideration throughout the texts." Tables are presented showing tabulated data concerning geographical and character references, date references, and illustrative material. One chapter of the thesis is devoted to the aims of the textbooks as expressed in the prefaces, to study helps, such as chapter divisions and paragraph headings, footnotes, chronological tables, questions and reference assignments supplementing the chapters, and indexes, to the tables of content, and to bibliographies. The findings reveal (1) very noticeable differences in content, (2) certain errors in construction and content, and (3) the most praiseworthy features of the textbooks. A table is presented giving a summary of the principal findings. Bibliography, seventeen references.

208. **Short, J. F.** "The Contributions of High-School Teachers to Professional Periodicals," M.A., 1929. 72 p.

By an analysis of nine educational periodicals for a period of ten years, the author of this study has attempted to determine the amount and character of the professional writings of high-school teachers. In formulating conclusions concerning the major problem, the following five minor problems are considered: (1) "Who is writing the articles published in the educational periodicals of America?" (2) "What type of contribution is being made by high-school teachers?" (3) "Are high-school teachers contributing their reasonable share of articles to the educational periodicals?" (4) "What is the probable explanation of the present system?" (5) "What needs to be done to improve the present situation?" It was found that high-school teachers are writing 20 per cent of the articles published in the educational periodicals. They contribute more extensively to the periodicals that deal with one specific subject in the educational field. Short bibliography.

209. **Smith, C. A.** "The Consolidation of Indiana Rural Schools; Their History, Development, Problems, and Outlook," M.A., 1926. 122 p.

In this thesis the writer traces the development of the consolidated plan, describes the plan in operation at the time of study, discusses the social and moral values of the consolidated school and the material benefits to be derived from school consolidation, points out that the most prominent defects in the system are connected with financing and administration, contends that the consolidated schools have bettered classification, gradation, and instruction of both elementary and secondary rural-school pupils, offers suggestions and schemes for greater extension of the system, and presents a prediction concerning the future of consolidation. Bibliography, twenty-seven references.

210. **Smith, G. H.** "Compulsory School Attendance in the United States," M.A., 1928. 88 p.

This problem is concerned with (1) the arguments which have been given for and against compulsory school attendance, (2) the provisions that have been made by the various states for compulsory school attendance, (3) the effectiveness of these state laws, and (4) the present status of federal control of compulsory school attendance. Material for the study was obtained chiefly from an examination of the literature on the problem. At the outset of the thesis is presented a discussion of the historical meanings of the term "compulsory education." Treatment is also given

to the early legal provisions for compulsory education and to compulsory education in the middle colonies. Among the tables presented in the study is an extensive one showing important features of the compulsory school-attendance laws in the various states. The author recommends that chronological age requirement be done away with and that the educative value of work be recognized. Bibliography, thirty-five references.

211. **Smith, J. A.** "A Proposed Special Methods Course for Prospective Teachers of Physical Sciences," M.S., 1926. 56 p.

On the basis of information obtained from 118 replies to a questionnaire sent to 220 teachers of physics and chemistry in Minnesota high schools, in which these teachers were asked to give an account of the duties they were called upon to perform, the investigator attempted to formulate a special methods course for senior students in the college of education preparing to teach these two subjects in Minnesota high schools. Considered in the outline of the proposed course are the following items: introduction, the meaning of science, reasons for the study of science in the high school, changing character of physical-science teaching, psychology of physics and chemistry teaching in high school, teaching in the classroom, teaching in the laboratory, books and reference material, testing and grading, and selection, purchase, and care of equipment. A reading list of 145 references is presented to accompany the proposed course.

212. **Smith, P. A.** "Education in Old Japan," M.A., 1912. 307 p.

Books in Japanese, books in English, translations, and statements of Japanese and Occidental historians of authority contained in other sources were consulted in an attempt to present this historical account of education in Japan up to 1868. Among the chapter titles which may indicate the scope of this research are: "From the Earliest Days to the Coming of Chinese Learning," "The History of the University," "Early Medical Education and Institution," "Provincial Schools in the Hein-Cho," "Educational Materials," "Medical Knowledge and Practice," "Buddhist Educational Work Prior to 1186," "The Education of Women Prior to 1186," "The Dark Ages or The Transitional Period," "The Shogunate University," "Provincial or Daimyo's Schools," "The Introduction of Foreign Learning," "The Jusha or Professional Scholars," "Lectures or Story-Tellers," "Systems of Thought in Japan," "Brief Biographical Sketches." Bibliography, thirty-two references.

213. **Smith, V. T.** "A Study of the Informational Content of Textbooks in High-School Economics," M.A., 1929. 65 p.

This thesis is a study of the relative importance of various informational topics in high-school economics textbooks. The criterion of importance is agreement of authors as indicated by inclusions and space allowances given to the topics. The data used in this study were the numbers of "equated" pages devoted to informational topics as found in the analysis of twelve high-school economics textbooks. The coefficient of correlation is computed between the number of books in which each topic is found and the number of pages devoted to it. Among the fourteen concise statements of conclusions the author states that "no definite index number can be taken as a standard for determining which topics are considered by authors to be of sufficient importance for inclusion in the curriculum." Bibliography, thirty-nine references.

214. **Souders, L. B.** "The Present Status of Final Written Examinations," M.A., 1923. 95 p.

This investigation is divided into three projects. Project I deals with the present status of final written examinations in high schools; Project II, with the types of questions asked by teachers in final written examinations; and Project III, with the reliability of final examination marks as assigned by teachers or other school officials. Data for the study were secured from principals of Illinois high schools and from superintendents

of Illinois city-school systems. The findings of the study reveal that final examinations are given in approximately 90 per cent of the high schools, that the majority of the questions asked by teachers in final written examinations in all subjects except foreign language and mathematics are of the type ordinarily classified as "thought" questions, and that examination grades are much more accurate than they are commonly thought to be. Bibliography, thirty-nine references.

215. Spencer, E. R. "Daniel Defoe's Contributions to Education," M.A., 1914. 71 p.

In attempting to point out the effects of Daniel Defoe's contributions upon education, the author of this study presents, first, a biographical sketch of the life and training of Defoe, following this with a brief account of the times during which he lived. Treatment is then given to Defoe's works, which the author classifies for the purpose of showing the relation between the works on education and those on other subjects. Defoe's views concerning the education of gentlemen as set forth in his *Compleat English Gentleman* are given in connection with the views of some of his predecessors. Finally, the essential points concerning Defoe's projects of academics are presented and discussed. According to the author, "Defoe's greatest contribution to education probably lies in the definite forms he gave his plans and precepts." Bibliography, thirty references.

216. Stafford, G. T. "A Program of Health Education for Secondary Schools," M.S., 1928. 124 p.

Following a brief discussion of health conditions in the state of Illinois, the objectives of health education as determined from a general review of the health-education field, health writings, and so forth, and from an examination of courses of study, are listed, analyzed, and evaluated. The author then attempts to set up a list of health objectives based on "logical reasoning and a background of eleven years of teaching and supervising the health aspect of physical education." Following the determination of the conduct objectives, which are stated in terms of pupil activity, and the groups of control objectives necessary for the acquisition of the conduct objectives, 230 specific learning exercises, selected by the use of a number of criteria, to be used to produce in the pupil the abilities specified as objectives, are presented. A supplementary program of health supervision and physical education comprises the final chapter of the thesis. Bibliography, forty-six references.

217. Staley, M. B. "The Organization and Supervision of Physical Education for Girls in Grades Seven to Twelve," M.A., 1928. 112 p.

Data for this study, which is an attempt to suggest possible procedures for the organization and supervision of physical education for girls in grades seven to twelve, were collected from books and periodicals and from answers to a letter of inquiry concerning the problem of supervision of physical education received from a number of supervisors and directors of physical education in different sections of the United States. There are two parts to the study. Part I is an attempt to give suggestions concerning the ultimate objectives of health education and physical education, the immediate objectives of physical education, factors that should be considered in selecting the physical activities for the program of physical education, and physical activities that should be included in the program of physical education for girls. Part II is concerned with a discussion of the nature of the personality and training of the supervisor of physical education and with a discussion of the desirable standards that should be included in a plan of supervision of the physical activities for girls in grades seven to twelve. The Appendix presents a supervisory checking scale to be used by the supervisor as an objective device for judging the qualities of women physical-education teachers and their technique of teaching. Bibliography, about one hundred references.

218. **Staley, S. C.** "The Program in Physical Education for the High School," Ph.D., 1929. 454 p.

The various phases of the problem with which this study is concerned are as follows: the program in physical education in the American schools from 1880 to 1917, associated movements that have been linked up with recent changes in the program in physical education, the program in physical education in the American schools from 1917 to 1928, general principles and assumptions underlying education upon which the program of physical education should be based, the nature and function of physical education, objectives of the curriculum in physical education, and learning exercises. Complete units of activities in three fields of human behavior—leisure time behavior, hygienic behavior, and social behavior—are presented as the ultimate objectives for the suggested program of physical education. Control objectives necessary for the acquisition of the conduct objectives and suggested learning exercises for varying types of objectives are presented. No bibliography.

219. **Stephens, Ross.** "Subjects Taught by Illinois High-School Teachers," M.A., 1924. 131 p.

For the purpose of discovering for prospective teachers what subjects they would most likely teach, curricula covering a period of five years were considered with respect to the relative importance of the different subjects as found in the high-school program. Twenty-four subjects were used. The high schools of the state were arranged in three groups according to their accredited or non-accredited standing with the State Department of Education, with the University of Illinois, and with the North Central Association. The teachers, including administrators, of each group were considered as to single and combination subjects taught for the year 1919-20, the year 1922-23, and the year 1923-24. The administrators who taught were considered separately for the same periods. Besides the general summary of data covering the whole period, conclusions were drawn concerning the relative importance of the different high-school subjects. No bibliography.

220. **Stevenson, J. A.** "The Project Method of Teaching," Ph.D., 1918. 147 p.

This thesis, which presents an account of an investigation of the project method of teaching, concerns itself with (1) the determination of certain elements in a type of teaching situation which constitute the project, (2) an examination of concepts in use and more or less closely related to the project for the purpose of estimating their availability for describing the teaching situation previously indicated, (3) a statement and explanation of the term "project," (4) a critical examination of all extant definitions of the term, (5) a consideration of the significance of the project in relation to problem, motive, reasoning, drill, ideals, and the curriculum, and (6) an examination of the ideas contained in the term but under different names in the fields of law, medicine, engineering, and coöperative education. Material for this study was secured from a survey of the literature dealing with agricultural education, with the teaching of home economics and of the trades and industries, and with the administration of the Smith-Hughes Act, and from formal definitions of the project prepared by a number of authorities in the field of education, or related fields. According to the author, "projects are not intrinsically interesting, in spite of the claims made by the advocates of the project method . . . The project gives the ideal organization of subject-matter to arouse an aim and to direct thinking." Bibliography, 108 references.

221. **Stoevener, P. G.** "A Study of First-Year Clothing Courses in High Schools," M.A., 1923. 63 p.

State courses of study in clothing, and other material relating to clothing courses, received from most of the state superintendents of public

instruction, and Bobbitt's *Curriculum Making in Los Angeles* were examined for lists of objectives. The two groups of aims were then rearranged and classified in order to make clear outstanding characteristics and points of similarity and difference. The three most commonly used clothing textbooks in Illinois were analyzed for common facts. The list of course-of-study objectives and Bobbitt's objectives was in turn compared with the list of facts common to the textbooks. According to the author's conclusions, "much of the content of textbooks bears no relation to expressed objectives for the achievement of all the objectives, the material contained in more than one text, supplemented by other subject-matter must be studied." Bibliography, forty-five references.

222. Strange, E. C. "Departmental Supervision in Science," M.S., 1930. 84 p.

In an attempt to discover and classify the real duties of the supervising head of a department, the author has determined by observation the nature of departmental supervision in ninth-grade general science in two representative, large secondary-school systems. The three phases of the study deal with the theory and practice of departmental supervision in the secondary schools in general, with an account of the actual practice of departmental heads with respect to methods of instruction used in two large city high schools—the Senior High School in Upper Darby, Pennsylvania, and the South Philadelphia High School for Girls—and with an evaluation of these practices in terms of the best theory of departmental supervision. While emphasizing the primary function of heads of departments as the improvement of instruction, the author calls attention to a number of specific duties of this school officer with respect to each teacher in his group. Bibliography, twenty-four references.

223. Strohecker, W. D. "The Agricultural Project as a Factor in Vocational Guidance," M. S., 1926. 107 p.

In attempting to show the value of the agricultural project as a factor in vocational guidance, the investigator first discusses the need and desirability for vocational guidance. An explanation of the vocational movement in agriculture is then offered, together with a discussion of the project as a method, of the essentials of the project method of instruction, and of the project and the various types. Attention is given to the discussion of the agricultural project as a factor in vocational guidance, of the spread of agricultural education in the schools, and of the project as a method of vocational guidance. Data for the study were obtained from the opinions of authorities in the field, from reports and records, and from replies to a questionnaire sent to farmers who had previously been in the vocational classes in the high school. Bibliography, eighty-nine references.

224. Stroud, J. R. "The Application of a General Method to the Teaching of English Literature," M.S., 1930. 239 p.

The author has endeavored to determine the improvement in a class of third-year high-school students resulting from the conscious attempt on the part of the teacher to make her teaching conform to certain principles of teaching set forth by Monroe in his *Directing Learning in the High School*. Phases of the problem included formulating the aims of English literature, devising and assigning appropriate "learning exercises" that would lead the pupils to acquire the abilities specified by these objectives, and organizing the learning exercises so as to provide a "balanced ration" of the "types of learning activity" employed. Conclusions based on a study of daily lesson reports and testimonies of pupils reveal certain definite improvements with respect to the pupils' progress as effective learners. A check-list worked out by the author in an endeavor to make her teaching conform to the principles set for the investigation is presented. No bibliography.

225. **Summers, A. M.** "Relation Between Knowledge of Formal Grammar and Ability in Written Composition," M.A., 1930. 56 p.

On the basis of the results secured from administering objective tests—the Cross English Test for High Schools and Colleges, the Conkling-Pressey Grammar Test, the Pribble-McCrory Diagnostic Tests in Practical English Grammar for High Schools and Colleges, and the Van Wagenen English Composition Scales—to junior and senior English classes in the University of Illinois High School, the author concludes "that for the particular group of pupils tested there is found to be (1) a definite relationship, represented by a correlation coefficient of  $.466 \pm .071$ , between a knowledge of formal grammar and ability in composition, and (2) a definite relationship, represented by a correlation coefficient of  $.588 \pm .06$ , between practical grammar as measured by the scores on three standardized tests and ability in composition." Bibliography, nineteen references.

226. **Taylor, H. I.** "An Analysis of the Illustrative Material in Ten Home-Economics Textbooks," M.S., 1924. 69 p.

This study deals with an analysis of illustrations in terms of their mechanical placement in the book and with the correlation between the illustrations and the texts. In considering the first problem the author attempts to determine the per cent of space given to illustrations in home-economics textbooks, the type of illustration most widely used, and the kind of page placement of illustrations most often used by the publishers. In treating the second phase of the problem, the author considers the per cent of illustrations having subtitles, to the number of references made to each illustration, and to the placement of the illustrations with respect to the references. Recommendations are made after the discussion of each phase of the study. It is the author's opinion that "illustrations are expensive, and unless such use of them can be justified pedagogically they should be omitted from our textbooks." Bibliography, eleven references.

227. **Ter Keurst, H. D.** "Curriculum Bases as Determined by the Manual Industries," M.A., 1915. 110 p.

Twenty-two representative industries throughout the state of Illinois were investigated in this study, the purpose of which was to find bases upon which to formulate a scheme for industrial curriculum-making. The industrial situation as presented in the report is analyzed with respect to the average schooling of industrial workers, the beginning age of workers, the shifting of individuals from industry to industry, the period of apprenticeship, wages, length of working day, skill and technical knowledge necessary, methods of employment, and the employment of efficient workers and foremen. The findings reveal that the industries included in the study do not place first emphasis on instruction for skill and technical knowledge, that these industries are almost unanimously in favor of industrial-school training, that industry very strongly criticizes the school as "bookish" and unpracticable, that the period from fourteen to sixteen years should be spent in school, that a very large per cent of young workers from fourteen to twenty years are engaged in "blind-alley" or "dead-end" jobs, and that industry values drawing and citizenship as very essential courses for the curriculum. Significant facts on vocational education taken from Form I of the Illinois School Survey are presented as having special significance for this problem. Bibliography.

228. **Thornburgh, Zada.** "The Worth of Modern Literature in the High School," M.A., 1925. 42 p.

Data secured from seventy returns to a questionnaire sent out in March, 1923, by the Illinois Association of Teachers of English to three hundred of its members furnish the basis for a recommended list of books for the study of modern literature. The teachers to whom the

questionnaire, was sent were asked to list books of modern literature which they had taught, to state in what year each of these books had been used, to estimate the value of the results, and to give an estimate of the book or books. The most important value of the study of modern literature, according to the opinions expressed by the teachers, "is that it better prepares a student for his everyday life, especially his career, profession, or job in the future and connects him with a world similar to his own." The books of modern literature recommended for study by the teachers contributing to this report are briefly reviewed as the final chapter of this thesis. Bibliography, seventeen references.

229. **Tipton, J. B.** "What Should Be the Vocational Guidance Procedures of the High School?" M.S., 1926. 80 p.

This study reveals the need for systematic vocational guidance in the six-year comprehensive high school, gives a brief account of the history and present status of vocational guidance, presents a discussion of vocational-guidance procedures, and offers a plan for the organization, administration, and supervision of vocational guidance in the high school. The study is concerned chiefly with vocational guidance in six-year high schools with an enrollment of from five hundred to one thousand students. The following vocational-guidance procedures are suggested: gathering data needed in vocational guidance; recording data; organizing, evaluating, and interpreting data; disseminating information and advice; prevocational education; correlated student activities; correlation with other agencies interested in vocational guidance; placement; employment, supervision, and follow-up. Bibliography, ninety-three references.

230. **Tozier, R. B.** "An Analysis of the Visual Aids in High-School Civics Textbooks," M.A., 1926. 75 p.

Five high-school civics textbooks were analyzed to determine the extent to which the illustrations found in these texts were made use of by the authors in their presentation of the subject-matter. The following subproblems are discussed in the thesis: (1) the portion of book space given to illustrative material, (2) the size of illustrations, (3) the position the illustrations occupied on the page, (4) the relationship between illustrations and content of the text, (5) the placement of illustrations relative to textbook matter which referred directly or indirectly to them, (6) the relationship between the illustration and its caption, (7) the various kinds of illustrations, and (8) the acknowledged sources of illustrations. Conclusions are drawn for each of these subproblems. The findings reveal little regularity as to the size of illustrations and a lack of direct connection between illustrations and text content. No bibliography.

231. **Tremper, G. M.** "The Effect of Participation in Extra-Curricular Activities on the Scholarship of the Participants in the Kenosha, Wisconsin, Senior High School," M.A., 1928. 63 p.

Using the scholarship records secured from the permanent records of the Kenosha, Wisconsin, Senior High School, data regarding extra-curricular participation secured from lists in the school paper, from records of the student council, and from eligibility lists of athletes, and intelligence quotients secured by means of the Terman Test of Mental Ability, Form A, the investigator compares the scholarship records of 112 students who had participated in extra-curricular activities during at least one semester or more since entering high school with those of 417 students who had not participated in extra-curricular activities at any time since entering high school. Scholarship records of the participating students during participating semesters were compared with the records of these same students during nonparticipating semesters. An additional comparison is made of the records of the participating and nonparticipating semesters of athletes. According to the findings of this study, participation in extra-curricular activities does not affect the scholarship of the participants to any material extent. No bibliography.

232. **Turnipseed, D. A.** "Financial Administration of High-School Extra-Curricular Activities," M.S., 1928. 62 p.

The principals of fifty high schools, selected at random from central Illinois towns, were visited and interviewed, and an equal number of principals from schools where visitations were not made were interviewed concerning methods of financial administration of extra-curricular activities in their particular schools. Additional data were secured from published literature on the subject. After presenting criteria, selected in part on the basis of frequency of mention made of them by writers on the subject, for judging a high-school extra-curricular accounting system, the author discusses three types of systems of accounting in use at the time, the Budget System, the Triplicate System, and the Accountant Voucher System. From the financial systems in use those factors regarded as best have been selected to form the basis for an accounting system which the author offers as possibly fulfilling the needs of both small and large high-school extra-curricular financial accounting. Bibliography, twenty-one references.

233. **Unfer, Louis.** "Factors in the Supervision of Elementary-Secondary School Science Reflected in Textbooks and Other Published Literature," M.S., 1929. 112 p.

The three major parts of this thesis, the purpose of which is to investigate the theory and practice of supervision of elementary science in the secondary school, are concerned with (1) the discovery of the aims of science teaching pertinent to supervision, (2) the discovery of subject-matter suitable to the realization of these aims, and (3) the discovery of methods of instruction adapted to a satisfactory supervisory program in science. The aims of the teaching of elementary science were determined by an analysis of nineteen elementary-science textbooks written for use in secondary schools, five books on the teaching of elementary science, and twelve state and city courses of study. Eight elementary-science textbooks were examined for content of subject-matter. The final chapter presents the following material in terms of supervisory aspects: objectives in the supervision of elementary science, nature of the units of subject-matter, classroom method, testing and appraisal of results, testing and improvement of supervision, and supervision as a coöperative enterprise. Bibliography, thirty-two references.

234. **Van Cleve, E. E.** "Religious Education: Its Outcome in Moral Character," M.A., 1912. 41 p.

Using a number of statistical tables from state prisons and reformatories, worked over so as to show the religious belief or religious education of the inmates of these institutions, and information obtained from ministers of various religious denominations, the author has attempted to show (1) that there is a wide difference in church members as compared with non-church members in the matter of their standards of morality, (2) that special religious instruction in schools, or in organized classes under trained teachers, has an influence upon moral character in direct proportion to the thoroughness of such instruction, (3) that the religious teaching done in Sunday schools exerts a marked influence upon moral character, and (4) that there is urgent need of some plan by which definite religious instruction shall be made a part of the education of every child. The initial chapter of the thesis presents an historical review of religious education. Bibliography, thirteen references.

235. **Vick, C. E.** "A Study of the Written Recommendation as a Factor in the Selection of Teachers," M.S., 1929. 60 p.

In an attempt to determine (1) the prevalence of requiring written recommendations and the value attributed to them in the selection of teachers, (2) the source of written recommendations most desired by the employers of teachers, (3) the form of written recommendations most

satisfactory to the employer of teachers, and (4) the content of the written recommendations given greatest weight in the employment of teachers, a questionnaire was mailed to 252 principals and superintendents in the state of Illinois. The findings from a study of 169 replies to this questionnaire reveal that written recommendations were in use in the majority of cases, that employers feel that written recommendations have a real value as an aid in determining the desirability of candidates, that written recommendations given by persons who have had an opportunity to observe one's work are to be preferred, that the form of written recommendations most desired is the "specific answers to specific questions" type, and that the traits that should be included in the written recommendation should be only those that deal with problems of classroom instruction. Bibliography, sixteen references.

236. **Vose, R. M.** "Coöperative Teaching in English in the Secondary Schools," M.A., 1925. 97 p.

This study, the purpose of which is to consider the possibilities of a scheme of cooperation in the teaching of English in the secondary school, concerns itself with the plans of coöperation that have been used, the success resulting from the use of these plans, the possibilities and the disadvantages or difficulties in coöperation, and, finally, the most helpful facts found in the investigation. English journals, bulletins of the Illinois Association of Teachers of English, English leaflets, proceedings of the National Education Association, and other publications containing material related to the problem of this thesis were consulted. The author is of the opinion that the important field for coöperation is in the junior high school, and that if any plan of coöperation is to succeed, there must be a definite person responsible for the plan, a definite progressive plan of operation, and enthusiastic acceptance of the idea on the part of the teachers. Bibliography, sixty-three references.

237. **Wagner, C. J.** "An Experimental Investigation of Learning Involved in Ball Tossing," M.S., 1926. 114 p.

In attempting to determine the most economical method of teaching some of the motor skills involved in athletics, gymnastics, games, and other sports, four different groups of freshmen in the University of Illinois, selected on the basis of interest, industry, and freedom from the influence of previous training, were taught ball tossing and catching by four different methods—the reasoning method, the imitation method, the trial and error method, and the parts method. For the purpose of classifying the subjects according to their learning ability, three tests—a mirror-tracing test, a card-sorting test, and the Otis Intelligence Test—were administered to the subjects of the experiment. Correlations are reported for mirror-tracing and card-sorting, for mirror-tracing and intelligence, and for card-sorting and intelligence. The author reports that the "experiment fails to produce conclusive evidence of the superiority of any one method in the learning of ball tossing." Bibliography, ten references.

238. **Wakeley, J. E.** "An Analysis of the Visual Aids Used in the Teaching of High-School English," M.A., 1924. 87 p.

Three textbooks in each of four fields of high-school English—English literature, American literature, public speaking, and composition—and the English classics used in the Danville, Illinois, High School were analyzed to determine the amount of space given to different types of illustrations, the schemes used to place the illustrations on the page, the effect of such placement upon the efficiency of reading, and the uses made of visual aids. Articles appearing in five educational periodicals—*English Journal*, *School Review*, *School and Society*, *Elementary School Journal*, *Educational Screen*—were examined for material dealing with the teaching of high-school English and for references to the use of visual aids. Illustrative material for literature, including lists of periodicals containing pictures on definite topics, lists of slides available, films, photographs, records for

victrolas, and so forth, listed in the last three numbers of the *English Journal* for 1922 and retabulated by classics as required by the course of study in the Danville High School is presented in the Appendix. Bibliography, twelve references.

239. **Warren, Hill.** "Modern Tendencies in Secondary Education as Expressed in State School Laws," M.S., 1924. 223 p.

School laws of the various states were used as the main source of material for this study. Consideration is given to the movement in the various states to authorize the establishment of high-school districts, the history of state support of high schools and the legal provisions that the various states have made for special aid to high schools, the history of the high school in this country and the legal provision the various states have made regarding the subject-matter of the curriculum in the high school, the legal provisions for inspection in high schools, the purpose and method of inspection, the organization having power to inspect, the authority that the inspecting agent has over the high schools, the compulsory attendance laws of the states and what influence they have had on secondary-school attendance, and the laws relating to high-school teachers, including those relating to certificates, teachers' salaries, and pension and retirement funds. The principal tendencies in secondary education to which the legislatures have responded are summarized in the conclusions. Bibliography, thirty references.

240. **Wasson, M. J.** "The Development of State Aid in Education in the Public Schools of Illinois," M.S., 1920. 34 p.

Numerous sources of data, such as Illinois state laws, Illinois school reports, histories, histories of education, reports of state treasurers, and reports of state auditors, were consulted in this attempt to trace the development of state aid to education through lands granted by the state for educational purposes and through money appropriated directly out of the treasury. Chapter I of this thesis is devoted to a discussion of early education in Illinois; Chapter II, to a treatment of the Free School Law of 1825 and to the problem of school support up to 1850; Chapter III, to a discussion of permanent public-school funds of Illinois; and Chapter IV, to a discussion of the Free School Law of 1855, and of its effect. A summary is presented showing what the state of Illinois has contributed to education in the past, and a comparison is made of state aid with district taxation. Bibliography, fifty-eight references.

241. **Watson, P. M.** "The Evolution, Present Status and Desirable Future Development of the Community High School in the United States," M.A., 1919. 107 p.

This study is an investigation "of the various types of school units in the United States, and of the high-school organization developed in connection with each." Opinions of authorities in the field of education as expressed in educational literature and in eighty-nine returns to a questionnaire have been consulted for material necessary for discussion on the following phases of the study: the development of secondary education in America, types of elementary-school organization, community high-school development in connection with each of the types of elementary-school organization, sources of revenue for community high schools, consolidation and transportation, various high-school units found in educational literature, the desirable administrative unit, the desirable unit of supervision, the desirable relation between superintendent and board, and the desirable financial unit. According to the author, the "net result of the investigation is a strong endorsement of the county system." Bibliography, sixty-eight references.

242. **Weber, Edith.** "An Analysis of Thirty High-School Textbooks in English Composition," M.S., 1930. 62 p.

Some of the specific questions considered in the analysis of thirty

English composition books of senior high-school level published during the past thirty years were: (1) "What is the method of approach to the subject?" (2) "How is the subject-matter organized?" (3) "How has the changing educational aim influenced the source of illustrative material used?" (4) "What effort is made to create classroom expression activities similar to life situations?" (5) "What provision, if any, is made for drill?" (6) "What account is taken of individual differences?" Published material on methods of selecting the textbook, rating scales for judging English composition books, and reports of similar analyses of language books were other sources of data consulted. Ten concise statements of conclusions are drawn from the findings. The analysis reveals that an "increased number of classroom situations providing for expression are being made as nearly as possible like those situations actually met in the pupil's social contacts." Bibliography, fifty-one references, including thirty references to textbooks in English composition.

243. **Weber, O. F.** "A Study of Will-Temperament Tests," M.S., 1923. 172 p.

After presenting (1) an historical survey of the literature of mental tests, with special reference to the study of such personal traits as are considered phases of personality, character, individuality, and temperament, and (2) a consideration of the Downey Individual and Group Will-Temperament Test and Test IX of the Bureau of Personnel Research of Carnegie Institute of Technology, the author reports some experimental work carried on at the University of Illinois with post-graduate students, with sophomores and juniors, with seniors in the College of Commerce, with undergraduate and post-graduate students in educational psychology, and with University High School students. The purpose of this experimental work is described as being to find some way to check against the results of will-temperament testing, to arrive at an estimate of the comparative values of these will-temperament tests, and to determine in what way such tests serve as instruments of diagnosis in the problems of educational guidance and constructive school accounting. Correlations of volitional traits with age, force and duration of grip, measures of intelligence, school marks and semester grades, and the index of brightness are reported, together with correlations for self estimates and the ratings of judges. Criticisms of the tests and of the methods of scoring the tests are presented as the final chapter. Bibliography, over two hundred references.

244. **Weber, O. F.** "The Direction of Learning Outside of the Class Recitation Period," Ph.D., 1926. 200 p.

By the analysis and application of three generally accepted educational principles, the writer has attempted "(1) to isolate and analyze the problems of direction, (2) to propose procedures for their solution, and (3) to apply these procedures in suggestive plans for the direction of learning outside of the class recitation period in United States history and first-year mathematics." Preliminary to the study proper is a survey of the literature in reference to the direction of learning. Chapter II deals with the development of the conception of the guidance function of teaching; Chapter III, with the changes in school organization that have furnished this function; Chapter IV, with the nature of learning and the various types of learning activities; and Chapter V, with the direction needed and the types of directive procedures that the teacher may employ in order to make learning effective. Suggestions are offered in Chapters VI and VII for the direction of learning outside of the class recitation period in United States history and in first-year algebra, respectively. The final chapter contains a brief summary of the study, together with conclusions concerning important aspects of directing learning. Bibliography, 246 references.

245. **Webster, Maud.** "Pageantry in Education," M.S., 1923. 95 p.

Treatment is given in this thesis to a brief history of pageantry, to pageantry in informal education, to pageantry in the schools, to the psy-

chology of pageantry, and to an extra-curricular project in pageantry planned and carried out by sixty pupils of the University of Illinois High School, the purpose of which was to determine the educative value of such procedure. A suggested outline is offered for the reorganization of the public-speaking department to provide for the adoption of pageantry in the curriculum of the school. Presented in the Appendix is the pageant written and produced as the coöperative project reported in the thesis. Bibliography, about 150 references.

246. Werner, E. A. "The Critical Study of Questioning in Classroom Method," M.A., 1922. 78 p.

One hundred classes in three standard high schools and in as many grade schools were observed in an intensive study of the use of the question in classroom procedure. Recitations were copied stenographically and studied with respect to the educative value of the teacher's questioning. Discussion presented in the thesis concerns the defects in questioning, modern classroom methods, the number of questions submitted in a single class period versus the quality of these questions, and, finally, the art of questioning. Stenographic reports of the recitations observed are presented and considered with respect to each of these aspects of the problem. The author points out that "the chief reason for the lack of interest in school work is the failure on the part of the teacher to introduce questions which require thinking." No bibliography.

247. Wiley, J. F. "The State as an Agent for the Administration of High-School Education," M.A., 1914. 44 p.

Different types of legal enactment are presented in this thesis in an attempt to show the state as an agent well adapted for the administration of high-school education. The thesis concerns itself with the varying amounts and conditions of state control, the attitude of the state with respect to the progress of public secondary education, state high-school boards, state inspection of high schools, the certification of high-school teachers, the establishment of county, township, and rural high schools, financial aid rendered by the state, enactments pertaining to high-school textbooks, special interests under state control, and the results of centralized control. Among the sources from which data for the study were secured are the reports of the United States Commissioner of Education for the years 1870-1912, school laws, reports of the state superintendents, annual reports of high-school inspectors, and educational books. Bibliography, twelve references.

248. Wilkin, R. E. "A Study of the Individualization of the Teaching of First-Year Latin in High School," M.A., 1927. 133 p.

There is presented in Chapter II of this study a brief account of the development of individual instruction, a description and comparison of practices, and an evaluation of previous studies. The remainder of the thesis is devoted to the problem which is stated as follows: "to ascertain some of the outcomes of the teaching of first-year Latin by the individual method of instruction, . . . to determine the relative amount and quality of work that can be done during the year, to discover, if possible, whether the method has special value in the case of the gifted pupil or the slow pupil, and to determine whether this method has special value as far as interest and joy in the work on the part of the individual student is concerned." Bibliography, thirty-two references.

249. Wilson, F. D. "A Study of Published Material on the Teaching of History and Other Social Sciences in High School," M.A., 1929. 121 p.

Texts on the teaching of history and other social sciences, educational bulletins, and educational periodicals were consulted for material in an attempt to determine the aims most commonly given by writers on the teaching of history and the other social sciences, the relation between the

selection and organization of subject-matter and the aims selected, and the methods used in order to realize these aims. The author first presents a discussion of the early nineteenth-century aims as compared with recent aims, and a classification and evaluation of aims as found in the material examined. Treatment is then given to the selection and organization of subject-matter in the light of the aims, to a discussion of the early nineteenth-century methods of teaching, followed by a study of the more recent methods, and to the views of different writers on measuring the results of teaching. Training for citizenship and social efficiency were the aims most frequently given for the teaching of the social sciences. Bibliography, fifty-four references.

250. **Wooters, J. E.** "A History of Academies in Illinois," M.A., 1913. 61 p.

This thesis presents an outline of the academy movement in Illinois, facts and opinions collected from a number of sources with respect to these institutions, and a discussion of such aspects of these private schools as their origin, foundation, support, government, and courses of study. The causes for the decline of the academies are pointed out and briefly considered. Histories of education, session laws of the General Assembly of Illinois from 1819 to 1870, Illinois school reports, and bound volumes of the *Illinois Teacher* were consulted as the chief sources of data. A list of academies in existence at the time this study was made, together with their location, date of organization, and so forth, is presented, as is also a chronological list of academies chartered by the Illinois legislature from 1819 to 1869. Bibliography, twenty-five references.

251. **Wright, C. H.** "The Need of Vocational Education for Boys in a Rural Town High School," M.A., 1926. 76 p.

The purpose of this thesis was to make a study of the needs of boys in the high school at Kenmare, North Dakota, with respect to vocational education. The problem is approached from the standpoint of the community background, the occupational distribution of former students, the vocational plans of the boys who were in high school, the needs of the "out-of-school" farm boys in the high-school patronage area, and authorities on the general need for vocational education. Data were secured from 112 answers to a questionnaire sent to former students of the Kenmare High School, from a questionnaire filled out by boys enrolled in the high school at the time the study was made, from a questionnaire filled out by the author in conference with out-of-school boys or their parents, and from a survey of the literature related to the problem. In conclusion the author presents an outline of various types of vocational education needed for the boys in the high school studied. Bibliography, twenty-two references.

252. **Young, H. S.** "The Development of Commercial Education in the Public High School of the United States," M.A., 1928. 147 p.

Books, pamphlets, periodicals, and bulletins available in the libraries of the University of Illinois, courses of study obtained from the larger cities, and literature published by business concerns furnish the data for this historical account of the origin, growth, and development of commercial education in the public high schools of the United States. The study deals with the historical background of commercial education in America, with commercial education in colonial America, with commercial education in the American academy, and with commercial education in the public high schools of the United States from 1821-1927. According to the author, "a complete reorganization of many commercial courses is necessary in order to have commercial subjects realize more of the objectives of secondary education. Bibliography, sixty-six references.

## TOPICAL INDEX

Academies in Illinois, history of, 250  
Achievement, Athletic Alertness Test as a measure of, 147  
Administration, 168, 247  
    agriculture, organization of, in the high school, 157  
    child accounting records, 204  
    compulsory education, 210  
    consolidation, 84, 209  
    continuation schools, 83  
    corporation schools, 16  
    departmental instruction, 15  
    extra-curricular activities, 232  
    high school, elimination in, 67  
    high-school districts, legal basis for the organization of, 93  
    individual differences, providing for, 122  
    intelligence tests, use of, as a basis of school organization and instruction, 178  
    junior high school, 75, 131  
    lengthened recitation-study period, advantages and disadvantages of, 186  
    marking systems, 88  
    Philippine public high schools, 182  
    physical education for girls, 217  
    promotion, 155  
    retardation, 154  
    school publicity, 190  
    sciences, organization of the, 157  
    state, 21  
    state appropriations for education, 240  
    superintendents, 142  
    teachers, selection of, 235  
    teachers, subjects taught by, 219  
    textbooks, selection of, 162  
    vocational guidance procedures, 229  
Adolescence, 125  
    psychology of, 116  
Adult education, immigrants, 90  
Agricultural education, 39, 174  
    development of, 202  
    graduate work in, 38  
    methods of teaching, 31  
    organization of, in the high school, 157  
    poultry husbandry, curriculum in, 87  
    score card for judging the success or failure of home projects in, 51  
    specific instruction in, 7  
    supervisors of, 79  
Agricultural project as a factor in vocational guidance, 223  
Algebra, 44  
    a study of failures in, 41  
    content of first-year, 81  
Animal psychology, 54  
Arithmetic, the socialization of, 161  
Assemblies, as a means for promoting better English, 199  
Athletic ability of freshmen taking athletic coaching, relation to average semester grades, 201  
Athletic Alertness Test, as a measure of achievement, 147  
Athletic-coaching freshmen, grades and athletic abilities of, 201  
Athletic psychology, foot skills in soccer football, 187  
    learning involved in ball tossing, 237  
    muscular coördination in basket throwing, 76  
Athletics in high school, 14, 23  
Attendance, compulsory school, 210  
Attitudes, as factors of college success, 109  
Ball tossing, learning involved in, 237  
Basketball, muscular coördination in basket throwing, 76  
Biology, content of textbooks in, 43  
    methods of teaching, 148  
Blind, education of the, 30  
Buildings, rural-school, 35  
Character education, 234  
Chemistry, objectives of high school, 73  
    projects in the teaching of, 173  
    student difficulties in high school, 100  
    visual aids in textbooks of, 32  
Child-accounting records, 204  
Children, outstanding characteristics of, 106  
City school systems, bureaus of research in, 12  
    current expenses of, 101  
Civics textbooks, content in, 50  
    visual aids in, 230  
Clothing courses in high schools, 221  
College. *See* Higher education  
Commercial education, development of, 252  
Community high schools, 189, 241  
    financial policies of, 78  
Compulsory education, 210  
Consolidation, 84, 209  
Continuation schools, 83  
Composition. *See* English composition  
Comprehension in reading, 65

Coöoperative teaching in high-school English, 236

Corporation schools, a comparative study of, 16

Cost accounting in the industrial arts, 133

Credit, evaluation of, for high-school work, 2

Curriculum, 176, 227

- adult immigrant education, 90
- agriculture, 31, 38, 174, 202
- algebra, 44, 81
- arithmetic, 161
- biology, 43
- chemistry, 73
- clothing and textiles, 62, 221
- composition, 242
- economics, 213
- English, 159
- European history, 207
- farm management, 17
- foods, 200
- French, 195
- general science, 55, 59, 104
- health education, 216
- higher education, 57
- horticulture, 146
- how to study, 197
- industrial education, 124
- junior high school, 75
- Latin, 80
- learning exercises, relation of, to immediate objectives, 135
- literature, 228
- mathematical courses, 131
- physical education, 113, 198, 218
- physical sciences, 211
- physics, 77
- poultry husbandry, 87
- religious education for a student church, 108
- secondary education, 29, 33, 128, 180
- sheep husbandry, 94
- spelling, 45
- surveying, 191
- United States history, 137
- vocational agriculture, 206
- vocational education, 124

Deans in high school, 10

DeFoe, Daniel, contributions to education, 215

Departmental instruction, 15

Departmental supervision in science, 222

Districts, high-school, 93

Drawing, talent in, 158

Economics, content of textbooks in, 213

Education in Japan, 212

Educational administration. *See* Administration

Educational guidance, 183

- for boys of high-school age, 63
- for medium-sized high schools, 26
- in higher institutions, 71
- learning outside of class recitation period, direction of, 244

Educational interest, phases of, 103

Educational psychology, adolescence, 116, 125

- ball tossing, learning involved in, 237
- basket throwing, muscular coöordination in, 76
- descriptive geometry and mental discipline, 203
- feeling and learning, 179
- gifted children, 107
- practice, effect of, on individual differences, 193
- sex differences, 129
- spelling, 130

Educational research by bureaus, 12

Elementary education, children, outstanding characteristics of, 106

departmental instruction, 15

handwriting, 25

history, methods of teaching, 53

literary material, standard requirements for memorizing, 9

methods of teaching, 128a

private, 111

science, supervision of, 233

supervision, 196

Elimination from school, causes of, 67

English, abilities involved in, 159

coöoperative teaching in, 236

failures, causes and remedies of, 85

formal grammar, 225

in the ninth grade, 98

literature, 224, 228

supplementary reading, 68, 166

the assembly as a means of promoting, 199

visual aids in the teaching of, 238

*See also* English composition

English composition, errors in, 160

- analysis of textbooks in, 242
- individual project in, 149, 153
- project method in, 99
- relation between knowledge of formal grammar and ability in, 225

Entrance requirements in state universities, 150

Equipment in rural schools, 35

Examinations, 214

- the use of, in secondary education, 185

Executive ability, psychological tests for, 64

Expulsions and dismissals, scholastic records of students, 95

Extension activities of public schools, 194

Extra-curricular activities, effect of participation in, 58, 102, 231  
financial administration of, 232  
in state universities, 117  
student self-government, 188

Eye-sight of school children, teachers' tests of the, 96

Faculty meetings, 40

Failures, algebra, 41  
English, 85  
high-school, 48, 74  
higher education, 95

Farm management, an analysis of the content taught in, 17

Fear, influence of, upon rate of learning, 13

Feeling, relation of, to learning, 179

Finance, community high schools, 78  
current expenses of city school systems, 22, 101  
extra-curricular activities, 232  
public-school funds in Illinois, 66  
state aid, 240

Foods, curriculum in, 200

French, 195

Funds, school, 66

General science, 59, 104  
project method in, 167  
textbooks, content of, 55

Geometry, pupils' mistakes in, 156

Geometry and mental discipline, 203

Gifted children, 107, 119

Girls, physical education for, 5  
school success and failure of, 74

Grammar. *See* English

Grammar and grammarians in France, 70

Grounds, rural-school, 35

Handwriting, 25

Health education, 216

Herbartianism, present status of, 37

High School Conference of Illinois, history of the, 56

High schools. *See* Secondary education

Higher education, agricultural education, 38  
curriculum, 57  
dismissals, 95  
educational guidance, 71  
educational research, 12  
English composition, 160  
entrance requirements, 150  
extra-curricular activities, 117  
home-management courses in, 123

individual project in, 19  
methods of teaching, 140  
military training, 86  
physical education, 42  
social sciences, 92  
success in college, 24, 102, 109  
teacher training, 18, 211

History, methods of teaching, 249  
textbooks, content of, 137, 207  
training high-school pupils to study, 171

History of education, academies in Illinois, 250  
agriculture, 202  
biology teaching, 148  
blind education in the United States, 30  
college curriculum, 57  
commercial education, 252  
community high schools, 241  
DeFoe's contributions to education, 215  
educational interest since 1900, 103  
grammar and grammarians in France, 70

High School Conference of Illinois, 56  
history teaching, 53  
home-management course at the college level, 123  
Illinois high schools since 1860, 169  
Indiana rural schools, 209  
Japanese education, 212  
junior high-school movement, 75  
military training in colleges, 86  
nineteenth century educational ideals, 60  
physical education, 42, 218  
private elementary and secondary education in Illinois, 111  
public schools in Illinois up to 1855, 151  
science teaching, 136  
secondary education, 128  
state appropriations for education, 240  
supervision, 82

Home conditions as a factor in school attendance, 115

Home economics, clothing courses, 221  
textbooks, illustrated material in, 226

Home-management course at the college level, 123

Horticulture for secondary schools, 146

Illinois, educational history of, up to 1855, 151  
academies in, 250  
high schools in, 3, 169  
status of teachers in, 181

Immigrant education, 90

Indian education, 52  
 Individual differences, effect of practice on, 193  
 providing for, 122  
 Individual instruction, in composition, 153  
 in Latin, 248  
 laboratory plan of, 149  
 Industrial curriculum-making, 227  
 Industrial education, 124, 133  
 Institutes, origin and history of teachers', 46  
 Intelligence tests, effects of practice on, 89  
 the use of, as a basis of school organization and instruction, 178  
 Interests of pupils, 125  
 Japan, education in, 212  
 kindergarten in, 165  
 secondary education in, 141  
 Junior-college instructors, preparation of, 6  
 Junior high school, 75, 172  
 departmental instruction in the, 15  
 Kindergarten education, effect of, upon traits of Japanese school children, 165  
 Latin, 80  
 methods of teaching, 248  
 Learning, direction of, outside of class recitation period, 244  
 influence of fear upon rate of, 13  
 involved in ball tossing, 237  
 relation of, to feeling, 179  
 Learning exercises, their relation to immediate objectives, 135  
 Legal requirements in professional courses for secondary teachers, 18  
 Lengthened recitation-study period, advantages and disadvantages of, 186  
 Libraries, high-school, 8, 29, 72  
 Literature, in the elementary schools, 9  
 in the high school, 228  
 methods of teaching, 224  
 psychological traits as revealed by, 125  
 Lyceum, 110  
 Marketing instruction in vocational agriculture, 206  
 Marking systems, 88  
 Marks, 11, 97, 201  
 Mathematics, 131  
 Mental age, 205  
 Mental discipline and descriptive geometry, 203  
 Mental tests, performance of high-school students on, 163  
 Methods of teaching, agriculture, 31  
 biology, 148  
 chemistry, 173  
 English, 236, 238  
 English composition, 99, 149  
 general science, 59, 167  
 gifted children, 107  
 Herbartianism in the United States, 37  
 history, 53, 249  
 in corporation schools, 16  
 in the elementary school, 128a  
 Latin, 80, 248  
 literature, 224  
 physical education, 28  
 project method, 99, 167, 173, 220  
 questioning, 246  
 science, 136  
 social science, 249  
 teaching devices on the high-school level, 105  
 vocational agriculture, 112, 175  
 Military education, history and present status of, 86  
 Mississippi, junior high schools in, 172  
 Motor skill, sex differences in tests of, 129  
 Muscular skills, 140  
 Natural ability as a factor making for success in college, 102  
 Nature study, relative values of, 7  
 New-type tests, 11  
 Non-intellectual tests, 139  
 Pageantry education, 245  
 Parent-teacher associations, 34, 127  
 Penmanship. *See* Handwriting  
 Pensions, 184  
 Performance of high-school students, 163  
 Periodicals, educational contributions of high-school teachers to, 208  
 Persistence in school, 115  
 Personality, elements of, 47  
 Philippine public high schools, 182  
 Physical education, curriculum, 198  
 history of, 42  
 in high school, 5, 113, 218  
 methods of teaching, 28  
 organization and supervision of, 217  
 utilization of time in, 164  
 Physical sciences, special methods course for prospective teachers of, 211  
 Physics, textbooks, content of, 77  
 training high-school pupils to study, 171  
 Physiological age, 205

Poetry, historical references in, 126  
Poultry husbandry, 87  
Practical arts, qualifications and duties of the supervisor of, 132  
Practice, effect of, on individual differences, 193  
    effect of, on intelligence tests, 89  
Preparatory schools, 250  
Private schools, 111  
Project method, 220  
    in English composition, 99  
    in general science, 167  
    in high school, 173  
Project teaching in higher education, 19  
Promotion, 155  
Psychological tests, for executive ability, 64  
    will-temperament tests, 243  
Public school administration. *See* Administration  
Public schools, extension activities of, 194  
    secret societies in, 49  
Public school finance. *See* Finance  
Publicity, school, 190  
Pupil difficulties in plane geometry, 156  
Pupil participation in secondary schools, 188  
Questioning in classroom methods, 246  
Reading, acquisition of meaning in children's, 65  
    silent, 177  
    supplementary, 68  
Reading material, plan for selecting, 192  
Recommendations as a factor in the selection of teachers, 235  
Religion, reaction of educational ideals on, 60  
Religious education, a curriculum, 108  
    outcomes of, in moral character, 234  
Religious organizations, 91  
Remedial instruction in English, 85  
Research, educational. *See* Educational research  
Retardation of pupils, mobility as a cause of, 154  
Rural education, 35  
    consolidation of schools, 84, 209  
    high schools of Illinois, 120  
    performance of pupils, 144  
    supervision, 4, 170  
    vocational education for boys, 251  
Scholarship, as a factor making for success in college life, 102  
    effect of participation in extra-classroom activities on, 58, 117, 231  
School administration. *See* Administration  
School age, 205  
School districts, organization of, 93  
School-house planning, 36  
School progress of gifted children, 119  
Score card for judging home projects in agriculture, 51  
Science, methods of teaching, 136  
    organization of, 157  
    supervision of, 222, 233  
Secondary education, 29, 61, 114, 118  
    academies in Illinois, 250  
    agricultural education, 31, 157, 174, 202  
    algebra, 41, 81  
    athletics, 14, 23  
    biology, 43, 148  
    chemistry, 73, 100, 173  
    civics, 50  
    clothing courses, 62, 221  
    commercial education, 252  
    community high schools, 78, 189, 241  
    curriculum, 33, 128, 176, 180, 200  
    deans, 10  
    economics, 213  
    educational guidance, 26, 63, 183  
    elimination in high school, causes of, 67  
    English, 68, 85, 98, 159, 166, 236, 238  
    English composition, 153, 242  
    examinations, 185  
    extra-curricular activities, 49, 58, 188, 231, 232  
    failures in high school, 48  
    farm management, content taught in, 17  
    French, 195  
    general science, 55, 104  
    health education, 216  
    high-school subjects, pupils' preferences for, 20  
    history, 53  
    home economics, 226  
    horticulture, 146  
    Illinois high schools, development of, since 1860, 169  
    Illinois high schools, statistics of, 3  
    industrial arts, 133  
    in Japan, 141  
    Latin, 80, 248  
    lengthened recitation-study period, 186  
    libraries, 8, 72  
    literature, 224, 228  
    marking systems, 88  
    methods of teaching, 53, 148, 236, 238, 248, 249  
    modern tendencies in, 239  
    performance of pupils, 144  
    Philippine Islands, 182

physical education, 5, 113, 198, 217, 218  
 physics, 77  
 poultry husbandry, 87  
 private, 111  
 rural high schools of Illinois, 120  
 school success and failure, 74  
 science, 157, 222, 233  
 size of high school attended, relation of, to scholastic success in college, 24  
 social sciences, 92, 249  
 state as an agent for the administration of, 247  
 study, 134, 171, 197  
 subject combinations, 121  
 supervision, 222  
 teacher training, 143  
 teaching devices, 105  
 vocational education, 251  
 vocational guidance, 229  
 Secret societies in the public schools, 49  
 Sex differences, 129  
 Sheep husbandry, curriculum in, 94  
 Silent reading, speed in, 177  
 Soccer, foot skills in, 187  
 Social life, participation in, as a factor making for success in college, 102  
 Social sciences, 92  
 methods of teaching, 249  
 Special abilities, talent in drawing, 158  
 Spelling, psychological factors concerned in, 130  
 textbooks, subject-matter and methods of presentation found in, 45  
 State appropriations for education, 240  
 State as an agent for the administration of high-school education, 247  
 State bureaus of educational research, 12  
 State educational administration, centralizing tendencies in, 21  
 Student-accounting records, 204  
 Study, 134, 171, 197  
 Subject combinations in four-year high schools, 121  
 Superintendents, 142  
 Supervision, 79  
 effect of, on teachers' objectives, 138  
 in elementary schools, 196  
 of physical education, 217  
 of science, 222, 233  
 rural, 4, 170  
 spread of, 82  
 Supervisors, qualifications, duties, and responsibilities of, 79, 132  
 Supplementary reading, 68, 166  
 Surveying instruction, 191  
 Surveys, 69, 152  
 Teacher rating, 27, 47  
 Teacher training, in high school, 143  
 in service, 1  
 junior-college instructors, 6  
 physical sciences, 211  
 vocational agriculture, 175  
 Teachers, contributions of, to professional periodicals, 208  
 desirable qualities of, 47  
 improvement of, 1  
 legal requirements in professional courses for, 18  
 preparation of junior college, 6  
 qualities of merit in, 27  
 rural-school, 35  
 selection of, 235  
 status of, in Illinois, 181  
 subjects taught by, 219  
 Teachers' institutes, origin and history of, 46  
 Teachers' meetings, 40  
 Teachers' objectives, effect of supervision on, 138  
 Teachers' pensions, 184  
 Teaching devices on the high-school level, 105  
 Teaching population, mobility of the, 145  
 Tenure of teachers, 29  
 Textbooks, algebra, 81  
 arithmetic, 161  
 biology, 43  
 chemistry, 32  
 civics, 50, 230  
 economics, 213  
 English, 238  
 English composition, 242  
 European history, 207  
 general-science, 55, 59  
 home-economics, 226  
 Latin, 80  
 physics, 77  
 selection of, 162  
 spelling, 45  
 United States history, 137  
 Universal education, 61  
 Visual aids in high-school civics textbooks, 230  
 Visual aids in the teaching of high-school English, 238  
 Vocational agriculture, 39, 112, 175  
 duties and responsibilities of a supervisor of, 79  
 marketing instruction in, 206  
 Vocational education, 124, 251  
 Vocational guidance, 223, 229  
 Will-temperament tests, 97, 243  
 Young Women's Christian Association, educational activities of, 91